REGULATION FILING AND PUBLICATION

1. Regulation Chapter Number and Heading:

   520 CMR 5.00

2. Name of Agency:

   Department of Public Safety

3. This document is reprinted from the Code of Massachusetts Regulations and contains the following:

   520 CMR 5.00 AMUSEMENT DEVICES

Under the provisions of Massachusetts General Laws, Chapter 30A, Section 6 and Chapter 233, Section 75, this document shall be used as evidence of the original documents on file with the State Secretary.

520 CMR 5.00: AMUSEMENT DEVICES

5.01: Scope

520 CMR 5.00 establishes the minimum standards for maintenance, alteration, operation, repair, inspection, assembling and use of amusement devices as delineated in M.G.L. c. 140, Sec. 205A. 520 CMR 5.00 is for the protection of persons using such devices. 520 CMR 5.00 does not replace or supersede any other existing regulations affecting the safety of the public or employees of the owners, operators or users. 780 CMR (State Building Code) must also be complied with.

In accordance with the provisions of M.G.L. Chapter 140 section 205a, the Department hereby adopts by reference, the following codes and standards:

ASTM F698-94	-	Standard Specification for Physical Information to be Provided for Amusement Rides and Devices
ASTM F747-97	-	Standard Terminology Relating to Amusement Rides and Devices
ASTM F770-93(2000)	-	Standard Practice for Operation Procedures for Amusement Rides and Devices
ASTM F846-92(1998)	-	Standard Guide for Testing Performance of Amusement Rides and Devices
ASTM F853-98	-	Standard Practice for Maintenance Procedures for Amusement Rides and Devices
ASTM F893-87(1995)	-	Standard Guide for Inspection of Amusement Rides and Devices
ASTM F1159-97a	-	Standard Practice for the Design and Manufacture of Amusement Rides and Devices
ASTM F1305-94	-	Standard Guide for the Classification of Amusement Ride and Device Related Injuries and Illnesses
ASTM F1193-97	-	Standard Practice for an Amusement Ride and Device Manufacturer Quality Assurance Program
ASTM F1950-99	-	Standard Specification for Physical Information to be transferred with used amusement rides and devices
ASTM F2007-00	-	Standard Practice for the Classification, Design, Manufacturer, and Operation of Concession Go-Karts and Facilities

These codes are on file with the State Secretary, but are not published with the Code of Massachusetts Regulations by reason of it's being reasonably accessible to that portion of the public affected by it.

5.02: Definitions

(1) AIMS. Amusement Industry Manufacturers & Suppliers, International

(2) Amusement Device also known as the Device. A fixed or portable mechanical

device similar to, but not limited to ferris wheels, carousals, inclined railways or similar devices which may be conducted under one or several managements at the same location or independently and which may be permanently set up in a fixed location or which may be temporarily set up or conducted in a public place or upon any private premises either with or without an admission fee, and which from the nature of the aggregation attracts attendance of, and causes the mingling of persons. Coin operated devices, skill games or playgrounds that have no mechanical devices do not apply to this definition.

(3) Accident an incident where an injury occurs requiring medical treatment related to specific injuries received on an amusement ride.

(4) Amusement Advisory Board A voluntary board appointed by the Commissioner or his designee, which shall hold meeting annually on the first Wednesday of November, and at such other times as it may determine, to review the activities of the recent amusement season. The Board shall be charged with the task of submitting recommendations for changes in the regulation and department activity as it relates to amusement devices. The Board shall consist of seven (7) members, one of whom shall be the commissioner of public safety or his designee, three (3) of whom shall be representatives of owners of traveling amusment devices, two (2) of whom shall be representatives of owners of permanent amusement devices, and one (1) of whom shall represent a user. Said members shall be designated in groups of two in their initial appointments to serve for one, two and three years respectively. Upon the expiration of the term of office of a member, their successor shall be appointed in the manner aforesaid for four years. The Commissioner of public safety or his designee shall be designated the Chairman.

(5) Amusement Park. Amusement Park means and includes a permanent aggregation of amusement devices, games, shows and other attractions including water rides and go-cart sites.

~~(6) Amusement Season The period of time between January 1st and December 31st of any year where an amusment company uses their amusement devices. The start of such season begins the first day after January 1st that they allow patrons on their amusement device. The typical amusement season in Massachusetts runs from March 15th to October 31st.~~

(7) Application. A standard form of application for a license to operate an amusement device as defined by 520 CMR 5.00 (see appendix A).

(8) A.S.M.E. American Society of Mechanical Engineers.

(9) A.S.T.M. American Society for Testing and Materials

(10) Attendant. An attendant of amusement devices is a person certified to be competent, experienced and instructed in the operation of amusement devices and who has been given the responsibility to perform his duties by the owner, user or operator of amusement devices or by their agents, servants or representative. An attendant shall be licensed by the Engineering Section of the Department of Public Safety. The attendant shall be the person having direct control of the starting, stopping, or speed of an amusement ride.

(11) Authorized. A District Engineering Inspector, a Building Inspector, State Electrical Inspector, employed by and authorized by the Department of Public

Safety to inspect in whole or in part, an amusement device which falls within his discipline. An authorized inspector certificated by the Department of Public Safety, following a written and oral examination relating to his competency to inspect amusement devices and who is employed by an insurance company authorized by the Commissioner of Insurance, and approved by the Department of Public Safety, to carry liability insurance on amusement devices, or as otherwise allowed by M.G.L. chapter 146 section 60. The owner or user of an amusement device, may, for the purposes of erection and daily inspection certify one or more of his employees to inspect amusement devices. Such person shall also be approved by the designee of the Commissioner of Public Safety.

(12) A.W.S. American Welding Society.

(13) CARES. Council for Amusment and Recreational Equipment Safety

(14) Carnival. ~~Carnival means and includes a transient aggregation of amusement devices, games, shows and other attractions.~~ A mobile enterprise principally devoted to offerint amusement or entertainment to the public in, upon, or by means of portable amusment rides or devices or temporary structures in any number or combinations, wheterh or not associated with other structures or forms of public attraction.

(15) Certificate of Inspection. An original certificate issued by the designee of the Commissioner following certification, in writing, by a registered professional engineer registered in the Commonwealth and who shall not be employed by the manufacturer of the amusement device, that the amusement device meets the requirements of safety adopted or established and in general use for such amusement devices.

(16) Certified Inspector A person who holds a Massachusetts Certificate of Competency to Inspect Amusement Rides and Devices, or an Inspector of the Department who has successfully passed and holds a nationally recognized certification to inspect amusement devices, or an Inspector of the Department who has successfully completed an internal Department training and certification program to inspect amusement devices.

(17) Chief. The Chief of Inspections.

(18) Commissioner. The Commissioner of Public Safety.

(19) Commonwealth. The Commonwealth of Massachusetts.

(20) Department. The Department of Public Safety.

(21) Designee. The person designated by the Commissioner of Public Safety.

(22) Division. The Division of Inspection.

~~(23) Inspector of the Division A certified inspector employeed by the Department.~~

(24) License. A standard form issued by the designee of the commissioner granting permission to use the amusement device for a stated period of time.

~~(25) Mechanical Device a device governed by mechanics, or a device relating to or dominated by physical mechanical forces, including wind forces (inflatable devices).~~

(26) NAARSO. National Association of Amusement Ride Safety Officials

~~(27) OABA. Outdoor Amusement Business Association~~

(28) Operator ~~A person having direct control of the starting, stopping, or speed of an~~

~~amusement ride. An operator shall comply with the requirements of an attendant.~~ See *attendant.*

(29) Park A location that has thrity-five (35) or more fixed or traveling amusement devices that may be operated.

(30) Patron Any person who participates in the riding or entering in an amusement device.

(31) Public Entity. A political subdivision of the Commonwealth, such as a town, city or county.

(32) Records Documents that owners of amusement devices must be in possession of, and must make available to inspectors of the Division upon request. Such documents shall include all ride maintenance documentation, all ride accident documentation, employee training documentation, operator manuals, and manufacturer manuals.

(33) Section. Any of the three divisions of inspectional staffing within the Department. Specifically identified as the engineering section; building section; and the elevator section.

(34) Serious Injury a personal injury/illness tht results in death, dismemberment, significant disfigurement, permanent loss of the use of a body organ, member, function, or system, a compound fracture, or other significant injury/illness that requires immediate admission and overnight hospitalization and observation by a licensed physician.

5.03: General Provisions

The following general provisions shall apply to all permanent and mobile amusement devices operating in the Commonwealth:

(1) Manufacturer's Manual

The owner of a new~~ly permitted~~ ride to be permitted for the first time in the state shall provide the Department with a complete copy of the manufacturers manual prior to final issuance of the permit to operate. Such manual shall remain on record with the Department. The manufacturer shall supply the Department with any updates, revisions, or alerts that may pertain to said device. The Department will post on the website the list of all manuals on file.

(2) Record Keeping

a. Each amusement device shall have a traveler immediately available and accessible to any authorized inspector or police official upon request. The traveler shall contain the most recent reports of all operator inspections, maintenance performed, accident reports and state or certified inspection reports performed on the ride ~~in the past month~~. for that location.

b. Ride records beyond ~~one month~~ the most recent reports must be maintained and kept on file for the life of the ride. Operator logs may only be kept for a week.

c. Nationally registered rides utilizing a uniform reporting system to a national database, approved by the Commissioner or his designee, may be substituted

for keeping records beyond one month. Such reporting system must have the ability to track non-routine maintenance performed on the device as well as accidents and incidents associated with that particular device. Owners complying with the Massachusetts reporting system shall be in compliance with this section.

(3) Accident Notification

The license to operate shall be suspended when an accident occurs on an amusement device that results in death, dismembering injury or an injury which requires admission to the hospital as the result of the malfunction of the device or an accident which results in major damage to the device or any of its component systems. The accident must be reported to the engineering section of the department of public safety within 1 hour from the time that the accident occurred. The amusement device shall not be moved from the site of the accident until approval is granted by an authorized inspector. The only exceptions permitted to the above rule that will be allowed are for preservation of life and property, the removal of injured persons or bodies, or to permit a flow of traffic. The device and area surrounding the device shall not be disturbed, cleaned up or altered to an extent that will impede the investigation. Within eight hours of notification of such accident the Division must start investigation of the accident.

Any injury which occurs to a person and is known or reported to the show owner/operator during the operation, starting, stopping, entrance to or egress from an amusement device that is covered by 520 CMR 5.00, or by the statutes contained in M.G.L. c. 140, Sec. 205A, shall be reported to the State Police Headquarters, 470 Worcester Road, Framingham, MA 01701 (508) 820-2121, and to the local police department by telephone, telegraph, teletype, or other rapid notification system within one hour following the occurrence of the accident on any such amusement device that is licensed by the Department of Public Safety, Engineering Section.

~~Any physician who treats a person for injuries related to an amusement ride accident shall immediately notify the Department of the name and address of the injured party as well as the injury sustained by the victim. Physicians shall notify the Department by calling the Department hotline at (800) 223-0933, or shall notify the State Police at (508) 820-2121 during off hours.~~

A reportable injury, except that as defined in the statute, shall be where an abrasion of flesh occurs which has drawn blood and cannot be effectively repaired by a first aid agency on site, or broken bones and internal injuries requiring professional offsite medical attention.

(4) Accident Investigation

In the event an accident occurs where the victim has been hospitalized, such amusement device shall be immediately shut down and secured until an inspector

of the Department has completed an investigation. No person shall move or alter the accident scene or the amusement device, except to remove the victim(s), until the inspector of the Department has released the ride as safe. If an accident occurs whereby the amusement device nor the operator of the device are clearly not the cause of the accident, the inspector may verbally release the ride.

In the event of accident, the operator of the amusement device shall be responsible to secure the device and shall remain at the device until dismissed by an inspector of the Department.

(5) Annual Inspection and Reporting

All amusement devices shall be thoroughly inspected annually to ensure they are mechanically sound and safe for operation prior to allowing patrons on the device at the beginning of the amusement season. Such inspection shall be performed by a Massachusetts certified inspector of amusement devices. It is understood and expected that these annual inspections shall be performed to locate and find stress cracks and mechanical flaws before the beginning of the amusement season. Certified inspectors shall ensure that an initial Manufacturers Data Sheet has been submitted to the Department, and shall submit with their inspectional report, a supplimental repair and accident report, as shown in appendix G, for each amusement device. Certified inspectors shall be responsible to ensure that the appropriate nondestructive testing, as required by the ride manufacturer, is performed prior to issuing a notice of inspection to the Department.

(6) Rider Responsibility Provision

There are inherent risks in the participation in or on any amusement ride, or device. Patrons of an amusement ride or device, by participation, accept the risks inherent in such participation of which the ordinary prudent person is or should be aware.

a) Patrons shall exercise good judgement and act in a responsible manner while using any amusement ride or device. Patrons shall obey all oral warnings by the ride operator, ride owner, or certified inspector.
b) Patrons shall obey all instructional and warning signs clearly posted on the amusement device.
c) Patrons shall not place themselves on any amusement device when under the influence of drugs or alcohol.
d) Patrons shall use all amusement ride safety devices provided on a ride to ensure their safety. Bypassing, removing or making any safety device inoperable shall be subject to criminal prosecution pursuant to M.G.L. C. 140 section 205a.
e) Patrons have a responsibilty to notify the ride operator of any pre-existing health conditions that may negatively effect the health and safety of the patron if they were to ride an amusement device.
f) Patrons who have been injured on a ride and seek medical attention must report the accident to the Department within twenty four (24) hours after seeking the medical attention. Patrons reporting an accident shall call the

Department on the accident hotline at (800) 223-0933, or shall call the State Police at (508) 821-2121 during off hours..

(7) Required Insurance Provisions

The owner or user of an amusement device(s) shall furnish proof of financial responsibility to satisfy claims for damages on account of any physical injuries or property damage suffered by any person by reason of any act or omission on the part of the owner or user, their agents or employees in the minimum amounts as determined from the following:

$1,000,000 Bodily Injury per person, per accident
$1,000,000 Property damage per accident
$1,000,000 in combined single limit bodily injury and property damage.

The character and form of the financial responsibility shall be as the insurance commissioner determines to be necessary for the protection of the public.

The device shall not be operated until the certificate of insurance has been legally registered with the department by a liability insurance carrier which has been authorized by the Department of Banking and Insurance to write public liability and property damage, nor shall it be operated until the device has been inspected and approved for use by an authorized inspector.

(8) Operator Responsibilty Provisions

The operator of an amusment device shall be responsible for the safe operation of such device. To ensure the device is safe for patrons, the operator shall perform the following:

a) Prior to opening an amusement device to the general public, the operator shall make a complete inspectional walkdown of the device, checking to ensure all pins, keys and safety devices are in place and in good working order.
b) The operator shall complete a daily inspection report of the inspection they have performed using an approved form. Appendix F gives and example of approved form. Forms other than those listed in the appendix must be approved by the Commissioner or his designee.
c) The operator shall visit each passenger carrying devices and verify that the safety devices are properly secured on all patrons prior to starting any amusement device.
d) The operator shall maintain their complete attention on the amusement device and the patrons in the device while the ride is in operation. The operator shall face the ride at all time when the ride is in operation.
e) The operator shall immediately shut down an amusement device if any patron appears to be in distress or threatens to or removes their safety restraints.
f) The operator is solely responsible for securing the amusement device in the event of an accident and shall remain at that device until such time that an inspector of the Department personally speaks with them.

(9) Amusement Device Identification System

Each amusement device shall be identified using a unique identification number. This system may be through a National Network System approved by the Commissioner or his designee, or thought the Commonwealth tagging system. Either system shall have a means of tracking or obtaining the device history as it relates to maintenance, inspections and accident information.

Devices using the Commonwealth tagging system shall be identified by a registration number issued by the engineering section, to his insurance carrier. The number shall be die stamped in digits and/or letters not smaller than 3/16" nor larger than 5/16" on a noncorrosive metal plate that is not easily abraded. Prior to the beginning of the 2001 amusement season, Massachusetts certified inspectors shall complete a Manufacturers Data Sheet on any ride that they perform the annual inspection. This manufacturers data sheet shall, at the minimum, contain the information as listed in appendix C. The manufacturers data sheet shall be forwarded to the Department prior to the issuance of a permit to operate is granted. Following the 2001 season, any new device entering the Commonwealth shall have the manufacturers data sheet submitted to the Department before a permit to operate is granted.

5.04: Provisions for Permanent Amusement Devices

(1) Annual Inspections. Each permanent amusement park shall submit a comprehensive inspectional report and to the Department prior to the start of each amusement season. Such inspection shall be completed by a Massachusetts Certified Inspector of Amusement Devices. Failure to provide annual inspections to the Department shall require the Department to perform the inspection of the amusement devices at the permanent facility for a fee no less than $100 per device or $1000 per day of inspection whichever is greater. Such fees collected shall go into a retained revenue account aid in the proper training, inspection, and certification of inspectors of the Department to inspect amusment devices.

(2) Insurance. Each permanent amusement company must provide to the department that they have $1,000,000 combined single limit bodily damage insurance, prior to the start of the amusment season.

(3) Inspector/Police Admission to Grounds. No person shall prohibit an inspector from the Department from entering the grounds of an amusment park in the pursuit of their duties.

(4) Logs and Reports. All owners and/or operators of permanent amusement parks shall maintain and preserve the following logs and reports:

i. All ride maintenance logs including service and repair reports;
ii. All logs of daily inspections performed on logs approved by the Department;
iii. All reports of any accident or injury which may have occurred as a result of an amusement ride.

Owners or operators of permanent amusement parks shall make available all logs

and reports required in this section to any inspector of the Department.

(5) Drug and Alcohol Policy. All permanent amusement park companies shall a drug and alcohol policy that prohibits employees from using or being under the influence of drugs or alcohol while operating amusment devices.

(6) Rides and Devices within Buildings. Where an amusement ride or device is located within a building not specifically designed to accomodate the ride or device, the following shall apply:

i. Fire Alarm. Any fire alarm shall be signalled by a positive means to the operator of the device; and should curtail the operation of the device by bringing it to a halt at the nearest or most appropriate position to facilitate the safe disembarkment of all patrons within sixty (60) seconds of activation of the alarm. Where, because of the sequential nature of the operation of the device, the maximum period from alarm activation to full evacuation of patrons from the device exceeds sixty (60) seconds, additional means of egress incorpoating alternative routes of escape shall be provided to ensure complete evacuation can be achieved within 3 minutes.

ii. Loss of Power. In the event of total loss of power to the building, which could lead to the stranding of patrons in an inaccessable location, a source of power sufficient to return the patrons to a postion which facilitates prompt and safe disembarkment shall be provided. Where patrons are stranded dues to a fault in the device, or remain stranded in the event of failure of the emergency or back-up power supply, means to safely access and evacuate patrons shall be provided at all times.

5.05: Provisions for Traveling Amusement Devices

(1) Cause to Operate. The owner, user or operator of any amusement device as defined in 520 CMR 5.00 shall not operate any such device until a license to operate it has been granted by the designee of the commissioner.

(3) Application for License. At least ten days in advance of the first operating day of an amusement device the owner, operator, or user of such device shall apply to the Engineering section for a license to operate within the Commonwealth. The application shall state the location and dates that the devices will be in the Commonwealth. The itinerary may be amended following its original issue by listing the changes in dates and locations with the Engineering section of the Department of Public Safety, Room 1301, One Ashburton Place, Boston in writing, at least ten days in advance, whenever possible, of the first operating day for the new or changed locations.

Under certain control circumstances, the operator or authorized designee shall notify the Department of Public Safety by telephone call, and a personal visit to the office of the Engineering Section, or the nearest branch office where the carnival is located. On Saturdays and Sundays, such notifications shall be made on the next business day. Kiddie rides under 10 RPM will be exempt from the provisions of the above notification but shall notify the Department as soon as possible that they are located in an area, or immediately

after the next business day. When two kiddie rides are back to back, operated by one operator, they shall be fenced.

(4) Issuing of Licenses, Transient Devices. Upon receipt of the inspection forms and certification that the device complies with the rules and regulations of the Engineering section, a license will be issued to operate the specific ride which has been inspected.

(5) Use of Expired License. In the event that an amusement device has been issued a license during the previous year and the owner, user or operator has made an application to the Engineering section and is unable to obtain inspection from his insurance carrier, the license will be extended for five days.

(6) License Issuance. The license shall be issued in duplicate. The original copy shall be given to the owner, user or operator upon assurance that all conditions required by 520 CMR 5.00 have been fully complied with. One copy of the license shall be retained by the engineering section for two years or until such time as any litigation concerning the device, its operation, or ownership has been adjudicated.

(7) Information, Display. The license shall state the name and address of the applicant, the location and the character of the amusement device and the name of the insurance carrier. Each license shall be conspicuously displayed on the grounds of the amusement center.

(8) Suspension, revocation. Licenses may be suspended or revoked by an authorized inspector after a public hearing held within seven days upon evidence that 520 CMR 5.00 have been violated or that any conditions stated in the license have been violated, or if any of the provisions of M.G.L. c. 140, Sec. 205A have been violated.

(9) Signature. Licenses for amusement devices shall have either the signature of the commissioner of public safety or the stamped facsimile of the commissioner's signature impressed by a designee of the commissioner on the original license and upon each copy of the license.

5.06: Provisions for Inflatable Devices

(1) General. The designer or manufacturer of an inflatable device shall specify the maximum recommended loading and wind velocity under which the device may be used, and the type of anchorage to be used under all conditions of deployment. This information shall be made available to any inspector upon request. Under no conditions shall the owner of an inflatable device allow the device to be set up or remain set up if the local wind velocity exceeds 25 miles per hour.

(2) Design. The design and installation of an inflatable device shall be in accordance with the following:

i. The blower unit or any other electrical equipment associated with the device shall be located and guarded to prevent contact by patrons or other members of the public.

ii. Adjacent surfaces shall be such that patrons can not be trapped between them.

iii. The outside walls shall be of sufficient height and strength to prevent patrons from falling out of the device during normal use.
iv. A system shall be established to provide safe negotiation by patrons where the entry/exit step height exceeds 8 inches.
v. There shall be no sharp corners, exterior angles or edges which could cause injury to patrons.
vi. Sufficient anchorage points shall be provided and located to enable stability and restraint to be maintained under the manufacturer's recommended maximum loading condition and wind velocity.

(3) Materials. The materials used in the manufacturer of inflatable devices shall be adequate for their purpose where bouncing anf rolling by patrons are conducted, and shall comply with the followiing additional requirements:
i. Materials, fasteners and zips shall be strong enough to withstand the inflated air pressure and any esxtra pressures created with the structure is in use.
ii. Any adhesives used shall provide a bond of equivalent strength to the strength of the bonded material.
iii. Paint and other decorations shall be non-toxic.
iv. Anchorage materials such as ropes and stakes shall be provided and sahll be of sufficient size, number and strength to maintain the stabilitiy of the device under the maximum loading condition and maximum anticipated wind velocity.

(4) Flammability. The materials used in an inflatable structure shall inflammable, or treated in such a manner as to classify the material as flame retardant.

(5) Inflatable structures where patrons are completely encased. Inflatable structures in which patrons are completely encased shall not be deployed over water, and shall be designed in accordance with the following:
i. Air purity. Air blown into a space occupied by patrons shall not pass through any palce or mechanism where the potential exists for toxic fumes or other contamination to be infroduced to the air flow.
ii. Fabric support. The fabric or supports shall be capable of holding the fabric at least 5 feet above ground for a time period to enable evacuation in the event of deflation.
iii. Attendant. Where inflatable structures are used by the general public, the owner shall ensure an attendant is monitoring the structure and the activities within the structure anytime a patron is entering, inside or exiting the structure. Such attendant shall ensure that the number of patrons in the structure does not exceed the manufacturers recommendations. To ensure public safety, the attendant shall reserve the exclusive right to limit the number of patrons in the device and to order patrons out of the device. In the event of deflation, or injury, the attendant shall immediately order all patrons out of the device, and shall ensure that the appropriate medical attention is taken for those injured.

(6) Inflatable structures for rent. Owners of inflatable structures who choose to rent the devices to private entities shall comply with the following:
i. Device setup. Owners shall ensure that each rented inflatable structure is erected and anchored in accordance with manufacturers specifications.

ii. Operating Instructions. Owners of inflatable structures for rent shall provide renters with complete operating instructions. Such instructions shall include instructions for the attendant, maximum capacity, safety guidelines for those entering the structure, and shall include a list of the potential hazards involved in renting this device, and instructions to minimize the potential for injury. Such instructions shall also include the accident notification requirement as listed in 5.03(2).

5.07: Provisions for Bungee Jumping Devices

Pursuant to M.G.L. c 22 section 11B

(1) Code Reference. The Department hereby adopts by reference version 2.1 of the United States Bungee Association Standards Code. Other comparable bungee codes or standards may be used provided the bungee company can demonstrate to the inspector from the Department that such codes or standards provide equal or better protection.

(2) Application. Any bungee company wishing to operate in the Commonwealth of Massachusetts must make application to the Department of Public Safety and shall obtain a permit to operate from said department before commencing operations. Such application shall be submitted along with a fee of $250. Such fee shall in the form of a certified check or money order and shall be made payable to the Commonwealth of Massachusetts.

(3) Insurance. Any bungee company operating in the Commonwealth must carry a minimum of $1,000,000 per incident liablitiy insurance. This policy must cover all aspects of the bungee operation, including all spectators, participants and any operators involved including hoisting engineers who may operate a crane.

(4) Crane usage. If a crane is to be used by a bungee company, the on-site hoisting engineer must possess a Commonwealth of Massachusetts 1A hoisting license. Nothing smaller than the use of a twenty (20) ton crane shall be used to hoist personnel for the purpose of bungee jumping. All cranes used for the purpose of bungee jumping must have an “anti-two block” safety system in place and operating.

(5) Employee Requirements. Any bungee company operating in the Commonwealth shall have a job site of no less than five (5) employees, each of which must meet USBA requirements. One employees shall ride in the man basket, at least one employee shall be on the ground continually monitoring the activities in the man basket; one employee shall be the hoisting engineer; and the remaining employees may handle ticket sales, money collection and other related matters. At no time shall the employee designated on the ground to monitor the man basket handle ticket sales or monetary transactions. The license to operate shall only remain valid if five (5) or more employees are present. No bungee jumping is permitted without compliance with this provision.

(6) Inspector Presence. An inspector from the Department of Public Safety shall be

present for the set up of the crane, inspection of the log, and the testing of the bungee cord. At the discretion of the inspector, the inspector or their designee may perform a test jump as a final check of the bungee safety system and devices.

(7) Communication System. A communication system shall be established, which will allow the hoisting engineer, the ground crew and the personnel in the man basket to remain in direct communication at all times.

(8) Minimum Age. No person under the age of sixteen (16) shall be allowed to bungee jump. Bungee companies shall require prospective jumpers to provide proof of age before being allowed to jump.

(9) Medical Conditions. Any person with a medical condition that could be adversely affected by bungee jumping shall be prohibited from bungee jumping. Those conditions include but are not restricted to:

iii. Pregnancy
iv. High blood pressure
v. Heart conditions
vi. Neurological disorders
vii. Epilepsy
viii. Neck, back or leg injuries
ix. Family history of cerebral/cerebellar aneurysms

Prospective jumpers have the exclusive responsibility to notify the Bungee Company that a potential medical condition exists, and to seek professional medical advise prior to making a jump. Bungee Companies shall not be responsible for injuries sustained as a result of an undisclosed medical condition of the jumper.

(10) Proper Signage. A sign shall be erected on all jump sites, listing any medical restrictions, age restrictions, and weight restrictions of jumpers not exceeding 275 pounds.

(11) Emergency Plan. Each bungee jumping site shall have a plan in place in the event of an emergency. Every employee of the bungee company shall have a good working knowledge of the plan. At least one (1) member of the ground crew or jump master must hold a minimum of a first aid rating or the equivalent, including a cardiopulmonary resuscitation certification.

(12) Accident Notification. In the event of an accident of any type, the bungee company shall immediately cease operations on that site and shall notify the Department of Public Safety within one (1) hour of the accident by calling (800) 223-0933. The site shall remain closed until an inspector of the Department has granted approval for reopening. Should the accident occur during non-business hours, the bungee company shall cease operations and notify the State Police at (508) 821-2121.

(13) Intoxication. No individual who is visibly intoxicated or appears to be under the influence of drugs shall be allowed to bungee jump.

(14) Restrictions. Bungee jumping shall be allowed exclusively over air bags or water only. Bungee companies must maintain a safety space beyond the jump sone of at least fifteen (15) feet over the air bag or water with a depth of less than ten (10) feet. No safety space shall be required when jumping is conducted over water which is more than ten (10) feet deep and there is a means in place to reduce water surface tension, such as a water spray. Bungee jumping from hot air balloons and bridges are prohibited. Stunt jumping, tandem jumping, reverse jumping, launching, sandbagging, and catapulting is strictly prohibited.

(15) Site Jump Master. Each bungee site shall have a site jump master who is designated as the person in charge of the operation. The site jump master shall stop jumping operation when the wind speed, lightning or any other weather condition exists that may effect the safe operation at the bungee site.

(16) Man baskets. Man baskets used for hoisting personnl must meet Occupational Safety and Health Administration (OSHA) specifications. Such man baskets must be approved by the Department of Public Safety. All baskets shall have the following:

a. Slip resistant floors
b. A gate chain or a suitable means that blocks access to the jumping platform while said platform is not in use.
c. Solid or semi-solid sides around the four sides of the manbasket to prevent prospective jumpers from attempting to abandon a jump after forward motion has begun. Man baskets shall not have any means for a prospective jumper to hold on or re-grasp after the jumper has begun their jump.

(17) Daily Logs. The site jump master shall ensure that daily logs are kept on all bungee equipment. Such logs must include the following;

a. Inspection of the cords
b. Inspection of the harnesses
c. Inspection of the ropes
d. Inspection of the crane
e. Inspection of any other equipment subject to strees during the act of bungee jumping.

These logs must be kept each day regardless of whether or not the equipment was used that day. The information in the mogs must include the number of jumps and results of inspection.

The platform owner is responsible for keeping a daily log of all activities, maintenance and inspections performed on said platform. Any welding on a platform must be performed by a certified welder welding in accordance with ASME Code Section IX.

All logs shall be made available, at any time, to any inspector of the Department upon request. Failure to provide the requested information may result in the revocation of the permit to operate.

(18) Bungee Cords. Only "multile sheatherd bungee cord" sets shall be used for bungee jumping in the Commonwealth. Bungee cords must meet the requirements as listed in the USBA standards code as adopted. If cords do not meet the requirements, they must be destroyed by cutting them into five (5) foot lengths.

Bungee cords must be destroyed when any one of the following conditions exist:

x. Exposure to daylight exceeds 250 hours. This does not apply when the cord cover of the sleeve fully protects all of the cord from visible and ultra-violet exposure.

xi. It is past six (6) months from the date of manufacture.

xii. Evidence of threads exhibiting wear, such as bunched threads, thread bands or uneven tension between threads.

xiii. Broken threads in excess of 5%

xiv. Cord has been in contact with solvents, corrosives or shows evidence of abrasion.

xv. When the dynamic load capacity reduces to less than the maximum designed dynamic load; as the bungee cord stretches over the course of its jump life, the dynamic load required to extend the bungee to four (4) times its unloaded length will reduce.

xvi. When the cord or its connectors are not in compliance with the manufacturers specifications.

xvii. When the cord has been used for the maximum allowable number of jumps of 300 jumps.

(19) Revocation. Failure to comply with this regulation may result in the immediate revocation of the permit to operate. Such revocation may be issued by any inspector of the Department. Appeal to any revocation shall be made to the Chief of Inspections, or his/her designee. Such appeal may begin by notifying the Department as listed in the accident notification section in this regulation.

5.08: Karts and Kart Tracks. The following requirements are for karts powered by either battery or internal combustion and driven on permanently installed indoor or outdoor tracks.

(1) Karts. Karts shall be constructed manily of non-combustible material with sufficient strgth to sustain the weight of patrons and to withstand streese induced by normal operation, collision with other karts or collision with any part of the surrounding structure. The center of gravity of the kart shall be as low as possible to minimize the possibility of a roll-over.

The component parts of a kart shall comply with the following requirements:

a. *Guarding.* Guarding shall be provided to prevent wheels from riding up or becoming enmeshed with the wheels or protrusions of other karts. Guarding shall also be provided to prevent patrons or track attendants contacting any hot or moving parts.

b. *Roll-over.* Roll-over protection shall be provided to protect patrons in the event of a roll-over, unless a documented hazard identification and risk assessment has

been carried out by a competent person, and demonstrates that such a requirement to be unnecessary.

c. *Headrests.* Headrests shall be provided to protect patrons in the event of a rear-end collision, unless a documented hazard identification and risk assessment has been carried out by a competent person, and demonstrates that such a requirement to be unnecessary.

d. *Kart protection.* Effective protection shall be provided to prevent the engine surfaces, transmission, fuel tank and exhaust system from coming into contact with the track or its surroundings in the event of a roll-over or collision.

e. *Steering wheels.* Steering wheels shall be oval or round in shape and shall be sufficiently padded.

f. *Steering column support.* Where used, a steering column support shall be positioned to avoid contact by the patron in the event of a collision.

g. *Steering limits.* Steering shall be limited in accordance with the design specifications for the steering gear.

h. *Seats.* Seats shall be constructed so that they reain patrons in place under normal driving and turning conditions.

i. *Dual-occupancy karts.* Where a kart is designed to carry two patrons, adequate hand and foot rests shall be provided for the second patron.

j. *Seat belts.* Seat belts of the lap/sash type configuration shall be fitted to all karts.

k. *Brakes.* Brakes which operate effectively to bring the kart to a stop in a safe manner and within a safe distance shall be provided.

l. *Fuel Tanks.* Fuel tanks shall be fitted with filler caps designed to eliminate any possibility of fuel leakage under any condition of operation or if overturned. The material used in the construction of the fuel tank and associated fittings shall be suitable for the intended function. The material shall be chemically resistant to and compatible with all commercial grades of fuel, including additives normally encountered. The material shall also be suitable for the environmental and operational conditions to which the fuel tank may be exposed.

m. *Speed limit.* The maximum attainable speed by any kart shall not exceed that which has been determined by a documented hazard identification and risk assessment performed by a competent person.

n. *Vehicle identification.* Each kart shall be marked in accordance with this regulation.

(2) Kart Tracks.

The design and manufacture of kart tracks shall comply with the following:

a. *Track design.* Thre track shall be designed and delineated in such a way as to prevent any kart from leaving one portion of the track and entering another portion of the track unless via a designated track route.

b. *Track surface.* The surface of the track shall provide consistent traction characteristics throughout its entire length.

c. *Track width.* The width of the track shaould be sufficient to allow a kart to pass two other karts laid end to end across the track.

d. *Barriers.* Barriers which are capable of stopping a kart travelling at full speed in a manner so as to protect patrons against injury shall be installed around the entire length of the track, unless run-off areas are sufficient size are provided to bring a kart to a halt in a safe manner. Barriers shall be fire resistant and constrcted such that the karts cannot climp up the sides of the barrier. Barriers shall be installed to prevent any kart entering spectator areas and inside areas of the track where operating staff are stationed. Barriers shall be in a condition that would not create a hazard or enable a patron to injure themselves if they came in contact with the barrier.
e. *Fencing.* Fencing shall be provided around the parimeter of the track at a sufficient distance to prevent a barrier from striking the fence should a kart strike a barrier. Any area containing persons other than operating staff or patrons shall be enclosed by fencing not less than 3 feet in height, similarly located behind a barrier.
f. *Loading/Unloading area.* An areas separated from the track shall be provided for the loading and unloading of patrons. This area should be arranged to prevent unauthorized entry.
g. *Fuel Storage.* An area separate from the track and loading/unloading area shall be provided for fuel storage.
h. *Ventilation.* Ventilation that complies with the current Massachusetts State Building Code 780 CMR shall be provied during the operation of indoor karting facilities.
i. *Lighting.* The track and surrounding area shall be sufficiently illuminated as to allow the supervision of the track, provide adequate visibility and to enable patrons to safely negotiate the course. Light and fittings shall be erected clear of any item with which a kart may collide.

5.09 Concession Racing Karts and Facilities

This standard applies to the design, manufacture and operation of concession karts and their associated operating facilities where qualified drivers (driver) can take part on concession kart racing and/or lapping sessions.

This standard does not apply to vehicles specifically offered for use by the General Public to replicate competitive motor sports in an amusement facility setting (concession go-karts), sanctioned racing or racing schools (race karts) or used for general purpose by private owners (fun karts).

(1) Definitions of Terms specific to this Standard

Concession Racing Kart; A motorized vehicle with 4 non-aligned wheels in contact with the ground, two of which control the steering while the other two transmit the power. A concession racing kart is a vehicle, with or without bodywork, controlled by the driver with respect to acceleration, speed, braking and steering. Concession racing karts are classified by speed and are driven and/or raced on tracks as defined below. Speeds for Class One and Class Two concession racing karts shall not exceed 35 mph and 55 mph

respectively. Speed qualification of concession racing karts shall be based upon speed measured on a flat and level track surface.

Discussion; This definition specifically excludes similar devices that are intended for use in an amusement facility setting (concession go-karts), race schools or sanctioned racing (racing karts), devices such as electronically or rail guarded amusement rides and bumper cars or other similar amusement devices that operate under circumstances where there is no defined direction of travel.

Concession Racing Kart Track Staff; Staff required to operate a concession racing kart facility. Duties include, but are not limited to, registering and briefing drivers, assisting drivers in and out of karts and managing all track operations.

Barrier System; A device installed on the concession racing kart track which defines the boundaries of the track and/or run-off areas and whose primary purpose is to contain the vehicles within pre-determined boundaries.

Driver; The person who manipulates and controls the direction of travel, braking and speed of a concession racing kart.
In order to drive a Class One concession racing kart, the driver must have either attended a class and taken both written and practical tests to establish their competency or be over 18 years of age and hold a valid internationally recognized drivers' license.
In order to drive a Class Two concession racing kart, the driver must either hold an applicable valid competition license from a recognized motor sport sanctioning body, have taken part in a minimum of six competition events in a Class One concession racing kart or have attended a class comprising both written and practical tests.
In all cases either the driver (and their parent/legal guardian if the driver is 18 years old) must sign a full release and waiver of liability and acknowledgement that they are taking part in competitive motor sports and understand the risk of possible injury and/or death.

Lapping Session; Any laps driven at a concession racing kart facility in either a race or practice session.

Pit; A defined area for the purpose of drivers getting in and out of the vehicles at the beginning, during or end of any lapping session and where refueling of concession racing karts may take place.

Concession Go-Kart; A motorized vehicle with four wheels that is driver controlled with respect to acceleration, speed, braking and steering. This vehicle operates within the containment system of a defined track and is intended to simulate competitive motor sports for members of the general public for a fee. A concession go-kart has a maximum capacity of two persons and no cargo capacity.

Fun Kart; A motorized vehicle with four wheels, sold commercially as consumer goods and intended for private personal recreational use by the consumers for off-road use on suitable terrain, as recommended by the manufacturer.

Race Kart; A motorized vehicle with four wheels designed for use in either Sanctioned Racing on tracks, streets, or other areas of competition or in a Racing School facility. Racing Karts are defined and classified by recognized motor sports sanctioning bodies, such as FIA, CIK, WKA, IKF, MSA, SCCA, etc. Anyone operating such vehicles must comply with the requirements for safety equipment as mandated by the Sanctioning body.

Track; A defined path for the operation of concession racing karts that has either a concrete or asphalt surface.

(2) Significance and Use

These guidelines are intended to delineate information for the design, manufacture and operation of concession racing karts and related track facilities.

(3) Concession Race Kart & Safety Equipment Specification

a. Chassis

Concession racing karts must be of an adequately strong construction and must present no undue hazard to its driver or other driver. In particular, steering, brakes and wheels must be adequate for speeds that are likely to be attained.

The concession racing kart chassis must be constructed from magnetic steel tubing. Cross section is free. It must be of one-piece construction either welded or brazed.

Any form of chassis frame control, which includes pivots, dampers or similar devices, is prohibited. Any form of suspension, either by elastomeric material or by any pivot is prohibited.

Concession racing karts shall have protected covers or component placement for moving or heated components of the engine and drive train system to prevent or inhibit the driver from inadvertent contact with these components while seated in the intended position for operation.

Concession racing karts shall incorporate a bumper system that encloses all four wheels in such a manner that the wheels from one concession racing kart cannot engage or override the wheels of another concession racing kart operating under normal conditions. The bumper system shall be designed in such a way that under normal operating conditions a concession racing kart shall be inhibited from climbing, separating or going under a barrier system.

b. Dimensions

The center of gravity should be as low as possible to minimize the possibility of a rollover. The maximum height for the bottom of the seat shall be 2.5".

The track must be a minimum of two thirds of the wheelbase.

Maximum overall wheelbase is 50"

Maximum overall length is 80"

Maximum overall width is 55"

Maximum unloaded weight is 300 lbs

c. Flooring

There must be a floor made from rigid material that, as a minimum, stretches from the seat to the front of the kart. It must be edged on each side by a tube or a rim to prevent the driver's feet from sliding of the floor.

d. Fuel Tank

Concession racing karts that are powered by gasoline engines shall be equipped with a fuel tank, filler neck and cap that will not leak more than one ounce of fuel over five minutes when inverted, in accordance with SAE J1241.

Concession racing kart fuel tanks shall be installed separately form the engine and in such a manner to minimize the potential for rupture or damage in the event of collision with another concession racing kart, obstacle or rollover.

e. Speed Controls

Speed limitation devices shall be incorporated in concession racing karts, that is, throttle stops, pedal stops, governors, gearing, throttle linkage adjusters, etc., to control speeds.

Concession racing karts will be fitted with a remote electronic limiter and/or engine shut-off device.

Concession racing karts will be fitted with an electronic timing transponder and all races will be timed to within an accuracy of 100^{th} of a second.

f. Brakes

Brakes may be hydraulic or mechanical disc brake operating on the rear wheels only. Master cylinders must be fitted in a position safe from impact at least 10" from the front and 18" from the side of the kart. Hydraulic lines must be securely fitted to the chassis upper sides and should be protected against damage. Drum brakes are not permitted.

Brakes must be capable of stopping a kart at maximum potential speed with maximum load within an adequate distance.

g. Seats

Seat must be rigidly located on the chassis and designed to securely locate the driver without movement relative to the chassis when cornering or braking.

h. Pedals

Pedals must not protude forward on the front bumper. A pedal equipped with a return spring must operate the throttle.

i. Axle

Axle must be one piece, of either solid or hollow magnetic steel bar.

j. Safety Equipment

Drivers of concession racing karts will be required to wear a **DOT** approved full-face helmet with visor, neck brace and an abrasion resistant racing suit of one or two piece design, such as an FIA/CIK approved kart racing suit, or a suit manufactured to a similar specification or a leather racing suit.

(4) Concession Racing Kart Track Design and Construction

a. Track

Concession kart racing tracks must be at least 16’ wide at the narrowest point and shall be free of vertical misalignment greater than ½” within 1” horizontal distance. The track surface must be non-combustible concrete or asphalt. At all times, there must be a minimum of 3’ between separate parts of the track.

The number of karts permitted to race at any one time will be determined by the length of the track; one kart per 65 linear feet measured at the centerline of the track.

The concession racing kart track running surface shall not have intersections on the same horizontal plane with the exception of the entrance point of the pit (or similar) area.

b. Barriers

Concession kart racing tracks shall have a fire resistant barrier system that must be capable of stopping a concession racing kart at full speed in a manner so as to minimize the risk of injury to a driver in the event of a collision. The barrier system shall be installed around the entire length of the track, unless run-off areas are sufficient in size to bring a kart to a halt in a safe manner.

Any spectator area or areas where track staff are stationed must be protected by barriers.

Barriers shall be of sufficient height and present a vertical face to the concession racing kart to minimize the risk of the kart climbing and/or crossing the barrier. Barrier systems shall be maintained in a condition that would create a hazard or present an unnecessary risk to a driver should they come into contact with it.

Tire barrier systems, if used without a trackside continuous band, shall consist of tires that are securely fastened and anchored to prevent relocation. Tires shall be free of rims or wheels.

When tires are used as support components for a continuous band barrier system, the tires shall be secured in a manner to help prevent the tires from raising the band upon impact by a concession racing kart.

Unauthorized public access to the concession racing kart track must be restricted.

c. Bridges and Elevated Tracks

Concession racing kart track bridges or elevated sections of track shall have a secondary containment system behind the primary barrier system on the approach, egress and the elevated portion of the track. This containment system shall be adequate to retain a concession racing kart, member of staff or a driver on the track or perimeter surface.

Any incline or decline must not exceed one foot for each five feet traveled.

Any elevated section of the track must be designed and built to support 50lb per sq. ft. live load.

d. Ventilation

Ventilation that complies with current State Building Code shall be provided during the operation of indoor concession kart racing. When occupied, the air quality of an indoor concession racing kart track must be constantly monitored in respect of engine emissions. Air quality must be maintained at a level pursuant to OSHA standard.

If a concession racing facility comprises any non-racing areas, such as registration, administration, retail, dining or general assembly areas, these must be separately ventilated with the track maintaining negative pressure to ensure that air moves from non-racing to racing areas and not vice versa.

e. Lighting

Concession racing kart tracks shall have appropriate illumination to allow for visual observation of the entire track and pit areas by concession racing kart track staff and drivers. Such lighting must be erected clear of any item which a kart might collide.

f. Safety Equipment

All concession kart racing track staff involved in controlling any lapping session must be equipped with a two-way radio or similar communication system approved by the Department. Any track staff stationed out on the track must be supplied with headsets, or similar communication system approved by the Department, to ensure clear communication at all times. Such headsets should cover both ears to mitigate the noise from the concession racing karts.

A signaling system or procedure comprising colored flags or colored lights or signs or any combination thereof, shall be provided to alert or warn drivers of hazardous conditions or caution situations during any lapping session.

Concession racing kart facilities should be equipped with sprinkler systems and fire extinguishers to meet all State Building Codes and should include, but not be limited to:

A minimum of a 10lb BC-rated fire extinguisher shall be accessible within a maximum of 100 feet of any point of the concession racing kart track in accordance with local, state and federal regulations.

A minimum of a 10lb BC-rated fire extinguisher shall be located in the concession racing kart track pit area and easily accessible to concession racing kart track staff.

Fire extinguisher locations should be marked in accordance with local, state, and federal regulations.

Fire extinguishers permanently mounted in weather-exposed locations shall be protected by an enclosure approved by local, state and federal regulations.

Comprehensive first aid equipment and supplies must be maintained in a central location along with a first aid bag that can be easily carried to the scene of any incident.

g. Fuel Storage and Dispensing

Fueling areas at a concession racing track must have a concrete surface and shall comply with local, state and federal regulations.

Concession racing kart tracks shall have a minimum of A 250-gallon fuel tank installed on-site with a comprehensive fire suppression system in accordance with local, state and federal regulations.

h. Pit Area

Concession racing kart tracks shall have a clearly defined Pit Area in which drivers may get in and out of their karts at the start, during and at the end of any lapping session. The pit area should be laid out in such a manner as to prevent drivers waiting to race from inadvertently being hit by karts entering or leaving the pits.

Any area where karts are left standing or are maintained to any degree must have adequate drainage with oil/water separation capability to meet the Building and/or Plumbing Code.

i. Briefing Room

Concession racing kart tracks shall have drivers' briefing room/area. Track rules and regulations should be posted in this area along with detailed explanations of any signs, flags that may be used during a race. Signage should include, but not be limited to:

Instructions concerning placement of hands on the steering wheel and feet Inside concession racing kart at all times.

Driver qualification requirements.

Instruction concerning the correct use of the safety equipment provided.

Restrictions regarding smoking in concession racing karts or in pit areas.

Information on complying with verbal, or signaled instructions, or both, given by track staff.

Instructions concerning blocking, bumping or pushing with go-karts.

Information regarding the importance of following rules and instructions.

A map of the track should be provided in the briefing room clearly showing the pit area, the direction of travel and location of any track staff, warning signals, pit entrance and/or penalty box.

Warning signage should be posted at appropriate locations (driver registration desk and/or briefing room), which must include, but not limited to, the following messages:

Warning concerning forces and actions that could aggravate physical conditions such as heart conditions, pregnancy, neck and back conditions,

Warning that motor sport can be potentially dangerous and that drivers take part in full knowledge of the risks involved and understands the risk of possible injury and/or death.

Warning that smoking is not permitted while in the vicinity of concession racing karts, the track, pits or fueling area of the concession racing track.

Zero tolerance policy regarding alcohol and drugs.

(5) Concession Racing Kart Track Staff

All concession racing kart tracks must be adequately staffed and at least one member of staff on duty at any time must be trained in basic first aid and CPR. The following descriptions outline the responsibilities that must be allocated to various personnel within any organization that owns, operates or manages a concession racing kart facility. Although it is acknowledged that one person might adopt multiple roles, this

must not in any way detract from the safety of the facility or the execution of any one of these functions.

All concession racing kart track staff must be adequately trained prior to the commencement of any duties. Initial and on-going training shall include, but not limited to:

Instruction on concession racing kart track operating procedures.
Instruction on specific duties of an assigned position.
Instruction on the use of all communication equipment.
Instruction on general safety procedures.
Instruction on emergency procedures.
Observation of the concession racing kart staff's execution of their duties.
Concession racing kart track employees shall receive training in fueling
Operations in accordance with all local, state and federal fire codes.

All concession racing kart track staff shall be easily identifiable to drivers and/or spectators.

a. Director of Operations
Responsible for overseeing the design and construction of the concession racing kart facility and the establishment, maintenance and development of all operational procedures. This person must have a minimum of five years active experience in motor racing, preferably karting.

b. Concession Kart Racing Director
Responsible for overseeing all racing operations. This also includes the supervision of all personnel that are employed trackside ensuring they are fulfilling their job responsibilities. This position involves training, motivating and maintaining a qualified staff to work in different trackside roles.

c. Track Manager
Responsible for all racing activities and personnel on the track during his/her shift. This includes ensuring that the track is well maintained, the karts are prepared, the equipment and briefing rooms are properly equipped and that all necessary signage is present and that the staff is prepared for any racing that will take place during the forthcoming shift. The Track Manager is responsible for ensuring that all drivers are adequately briefed and that the races are run in a safe manner.

d. Race Controller
Responsible for controlling all racing events from the central control station. This includes running the computer systems. Speed control/emergency shutdown systems and any centrally controlled signaling systems.

e. Pit Lane Marshal

Responsible for ensuring that drivers get in and out of karts safely and providing assistance to drivers during any lapping session. It is the responsibility of the pit lane marshal to ensure that all drivers are correctly using the required safety equipment prior to the start of any lapping session. Senior marshals may also provide safety and procedural briefings.

f. Track Marshal
Responsible for ensuring that any lapping sessions are run in a safe and professional manner. Each Track Marshal is responsible for controlling a defined portion of the track and communicating with the drivers through a series of established signal, i.e. flags, signs, etc. Track Marshals report directly to the Track Manager keeping him updated at all times regarding all activities on the track.

g. Mechanic
Responsible for safety inspections, the preparation and repair of concession racing karts, which should be clean and mechanically sound at all times.

h. Driver Registration Clerk
Responsible for scheduling drivers into any lapping session. This person must ensure that any driver wishing to take part in a lapping session meets the necessary criteria and has completed the appropriate Release and Waiver of Liability and Assumption of Risk and Indemnity documentation prior to scheduling them into a lapping session.

(6) Operations

a. Lapping Sessions
Prior to taking part in any lapping session track staff must ensure that all drivers meet the necessary criteria to drive and have completed the appropriate Release and Waiver of Liability and Assumption of Risk and Indemnity documentation.

During the mandatory pre-race briefing verbal instructions, concerning concession racing kart rules & regulations, shall be announced to all drivers. This briefing will include, but not limited to:

The zero tolerance policy regarding the consumption or use of alcohol and/or drugs.
The correct use of any safety equipment required.
The required position of hands and feet.
Instructions defining the brake and throttle and their operation.
The instituted signaling systems or procedures, which alert or warn drivers of hazardous conditions or caution situations during a race.
Instructions concerning blocking, bumping or pushing with go-karts.
Information regarding the importance of following rules and instructions.

Concession racing kart track staff shall ensure that all drivers are correctly using the required safety equipment prior to assisting them into the karts prior to the start of any lapping session.

There shall be concession racing kart track staff that shall be positioned so that they can observe and control each portion of the track. They shall be responsible for that portion of the track during any lapping session and must be able to reach any section of that part of the track immediately.

At all times during any lapping session, concession racing kart track staff must maintain total control and if required be able to stop a lapping session through either displaying the appropriate signal or using any electronic shut down device in operation.

Upon completion of any lapping session concession racing kart track staff shall ensure that drivers safely return to the pit area and assist them out of the karts if required.

b. Maintenance

All racing equipment including, concession racing karts, must be inspected and maintained in good and safe working order and in accordance with any manufacturers recommendations on a regular basis. All maintenance, both routine and repair, must be detailed in the maintenance & inspection logs along with daily, weekly and monthly inspection sheet for each kart.

These inspections should include, but not limited to:

General all round nut and bolt check.
Chassis for wear and tear with special regard to the possibility of fatigue and/or cracks.
Fuel and brake lines and throttle assembly.
All springs.
Tire wear, pressures, toe-in/out, wheel nuts, wheels, kingpin, steering column, axle and front wheel bearings.
Brake master cylinder, disk, caliper and disk.
Sprocket alignment and chain tension.
Bodywork, floor, seat and mounting brackets.

Concession racing kart track surfaces shall be maintained in good repair, and free of cracks, obstructions or potholes, or combination thereof, of greater than ½" vertical change within a 1" horizontal distance, that could damage the concession racing kart or cause the driver to lose control of the concession racing kart.

All barrier systems that must be regularly maintained to ensure their integrity.

c. Accidents

Any accident in which a driver or member of staff is injured must be documented on an Incident Report Form. Copies of this form must be maintained at the facility at all times and be available for inspection by an inspector of the Department. The documentation must detail the nature of the incident, type and extent of any injury, any action taken and the disposition of the injured party.

Accidents requiring professional medical attention must be reported to the engineering section of the Department of Public Safety within one hour from the time that the accident occurred.

In the event an accident results in a death, the scene shall be secured until approval is granted by an Inspector of the Department. The only exceptions permitted to the above rule that will be allowed are for the preservation of life and property, the removal of injured persons or bodies. The kart and area surrounding the device shall not be disturbed, cleaned up or altered to an extent that will impede the investigation. Within eight hours of notification of such incident the Division must start the investigation of the accident.

Accident notification shall be made to the department by calling the Department hotline at (800) 223-0933, or shall notify the State Police at (508) 820-2121.

(7) Driver Responsibility

There are inherent risks in participating in any form of motor sport, including concession racing karts races. Drivers taking part in such races accept the risks inherent in such participation of which the ordinary prudent persons is or should be aware.

Drivers have a duty to read any and all warnings and waivers and acknowledge that liability has been waived and the risk involved as a condition of being allowed to take part in any lapping session. All drivers must exercise good judgement and act in a responsible manner while racing and obey all oral or written warnings, or both, prior to or during participation, or both.

Drivers have a duty to participate in concession racing kart lapping sessions when under the influence of drugs or alcohol.

Drivers have a duty to ensure that they meet all of the criteria required to drive either a class One or Class Two Concession Racing Kart and to properly use all safety equipment provided.

Drivers have a duty to follow all instructions given by the concession racing kart track staff.

(8) Track Staff Responsibility

To ensure safety for Patrons, the Track/Staff/Marshals shall perform the following:

Prior to allowing any patron in a kart, at least one employee under the supervision of the Track Manager shall ensure that all drivers are adequately briefed and that the races are run in a safe manner. No one shall allow a person to enter a kart unless they have been adequately briefed.

No person shall allow or cause a race to begin or continue unless the entire track is being monitored by a duly trained and qualified member of the Track Staff.

The member of Track Staff directing patrons into the karts shall attend each kart to ensure that each driver is wearing all safety equipment properly before the allowing any lapping session to commence.

Track Staff shall maintain their complete attention on the portion of the track for which they are responsible.

Track race Controller shall immediately halt or reduce the speed of all karts in the event that any kart on the track is stationary by reason of an accident, mechanical failure or stall, or if any person appears to be in distress or threatens to drive or behave in a careless or reckless manner.

(9) Insurance Requirement

Provisions of 520 CMR 5.03 (7) apply.

5.10: Trackless Trains or similar devices

(1) Data plate. Each trackless train shall have prominately displayed a manufacturers data plate. Such plate shall include the maximum number of cars the train or device can pull safely and maintain proper braking. It shall also include the maximum number of passengers, as well as the national tracking identification number.

(2) Design Grades. Where designed for a specific terrain or road configuration, that the power, traction and stability of the system shall provide adequate margins for safety. The limiting characteristics of the system as designed shall be permanently marked in a prominent position within the cabin on the manufacturers data plate.

(3) Couplings and safety chains. Towing mounts, hitches, balls and ball couplers shall be capable of towing the loads placed on them. Safety chains or ropes shall be installed at alltimes between the prime mover and the leading carriage, and between all carriages. Such chains or ropes shall ensure that all prospective loads are sustained in the event of an unplanned separation.

(4) Brakes. A trackless train or similar device shall be fitted with the following minimum braking requirements:

a. Travel Brake. Prime movers shall be fitted with a travel brake system capable of stopping the fully loaded towed train under all designed conditions.

b. Parking Brake. Prime movers shall be fitted with an additional braking system capable of holding the fully loaded train stationary. A combination travel / parking brake may be used only with the prior approval of the Department and for devices carrying less than 8 patrons.

(5) Steering. The carriage steering configeration shall provide stability under all conditions of operation, and the turning circles of the prime mover and carriages shall be compatible and suitable for the application of the train. Carriages should have drawbar-activated steering to front wheels, and consideration should be given to linking the rear wheels for additional steering and tracking where the train will be required to operate on a narrow corridor.

(6) Drawbar capacity. The capacity and configuration of the drawbar shall be consistent with the designer's or manufacturer's recommendation for the number of carriages to be towed in any particular application.

(7) Center of gravity. The center of gravity of any carriage should be as clase to the operating surface as possible, and information regarding the maximum allowable sideways inclination should be displayed within the cabin.

(8) Use of spring suspension. Spring suspension shall not be used without some shock absorbing and movement limiting devices.

(9) Additional safety features. Wheels should not protrude beyond the sides of the carriages and the gaps between carriages should be fitted with safety screens to prevent access between carriages and across the drawbar. These additional safety features are to ensure that there are no accessible pinch points or hazards that could catch a patron's clothing or long hair.

(10) Other traffic. Where the train or similar device is operated with other vehicle traffic present, doors shall be fitted with catches wich are operable only from the outside of the carriages. If trains or similar devices are operated on public roads, they must be fitted with vehicle and trailer signal systems. Where trains or similar devices are operated with other foot traffic, the operator shall drive the device in a manner that does not present a safety hazard to pedestrians. Operators driving recklessly shall have their permit to operate immediately revoked and shall not be re-issued a permit until a Department hearing has taken place and the appropriate action has been taken to ensure rider and pedestrian safety.

5.11: Rebuilt and Modified Devices

If any amusement ride is altered or modified in a manner that changes its original action, motion pattern or structure, the following shall be done. The owner shall notify the engineering section of such action before proceeding with the change. Certification of a stress analysis with appropriate calculations covering the proposed changes, signed by a registered professional engineer skilled in stress analysis, shall be provided for the examination of the analysis by the engineering section or its consultants. Any changes

affecting the operational safety shall be acceptable to not less than three district engineering inspectors of the department of public safety and their consultants. A new certificate of inspection and a new license shall be obtained.

5.12: Police Admission to Grounds and Devices

Issuance of the license shall allow any police officer or inspectors of the department free access to the grounds and devices covered by 520 CMR 5.00 when the officer or inspector is performing his required duties in the enforcement of any of the laws of the Commonwealth.

5.13: Inspection

Inspection of amusement rides and devices shall be performed by the authorized inspector licensed by a board of three district engineering inspectors. There shall be a general mechanical inspection at least once a year, before the start of the season for amusement devices and before any permits for operation of said devices have been issued. Before any amusement device is permitted to accept passengers or riders, the device shall be declared structurally sound by an authorized inspector employed by an insurance carrier and licensed by the Department of Public Safety, Engineering Section. The insurance company shall be certified to carry liability insurance on such amusement devices. A team consisting of previously qualified authorized inspectors may also inspect such devices and if the device is found to comply with 520 CMR 5.00 shall authorize its use.

Department of Public Safety inspectors shall inspect the general safety of all traveling amusement devices/carnivals previous to the use of the rides or devices by the public, and to ascertain that they are in compliance with the rules and regulations of the Department of Public Safety, known as 520 CMR 5.00 and to assure the public, when such requests are made that the rides comply with the statutes and regulations, and appear to be safe, if that is the case. In the event that the inspector cannot meet the time requirements for starting the rides, the inspector may perform the safety inspection when the rides are in operation at a later date.

It shall be noted inspectors of the Department are not expected to perform close inspections on amusuement devices that would enable them to find stress cracks. In the event an inspector of the Department happens to locate such a flaw or defect, the inspector shall order the ride be shut down until the flaw or defect has been corrected and the ride made safe. Inspectors of the Department shall perform a general safety inspection that includes ensuring proper bolting, pins, clips, proper blocking, grounding, proper condition of safety devices including restraints and emergency stops and overspeed devices, signal systems, safety lockout switches, and to ensure that the overall condition of the ride and passenger carrying devices are such that no one could be apparently injured.

It is understood and expected that annual inspections performed on behalf of insurance companies by certified inspectors shall perform close inspections in order to locate and

find such stress cracks before the beginning of the amusement season.

5.14: Appeal from Decision of Inspection

Any person aggrieved by the refusal of the Commissioner to grant a license for the operation of an amusement device or from the suspension or revocation of a license shall have the right to appeal to the designee of the Commissioner who shall appoint a board of five persons, one of whom shall be a mechanical engineer, and two district engineering inspectors of the Division of Inspection in the Department of Public Safety and two persons designated by the Massachusetts Amusement Device Operators Association who shall be residents of Massachusetts. A majority vote of three members of the board may grant a license if they are of the opinion that the amusement device is safe for public use and in addition, all of the other provisions of 520 CMR 5.00 and the laws contained in M.G.L. c. 140, Sec. 205A have been fulfilled. The board shall meet within three working days after receipt of notice of appeal.

5.15: Cause to Be Inspected

The designee of the Commissioner of Public Safety shall require an annual inspection of fixed and itinerant amusement devices by the insurer's inspector before the device is used for either public or private purposes. In addition to the annual inspection of itinerant amusement devices they shall be inspected each time that the device is erected by a person designated by the owner or user and who has been approved by the designee of the Commissioner.

5.16: Manufacturer's Analysis

For new model rides for which this information may be requested, manufacturers, fabricators or amusement device owners, users or operators shall furnish a stress analysis or other pertinent data as required by the Engineering Section of the Division of Inspection. The stress analysis or other data pertinent to the design, structure, factors of safety or performance characteristics shall be in such detail that will make it acceptable to the Engineering Section. When such data on a particular device is accepted, then it shall be deemed to apply to all rides of the make and model where no modifications have been made.

In the event that no engineering calculations are available from the manufacturer or fabricator of a particular device that is a new device and when experience has not been sufficient to warrant acceptance of the device the engineering section shall require the owner, user or operator to furnish a structural analysis signed by a professional engineer registered in Massachusetts and who has special skill and experience in the appropriate discipline.

Note: In evaluating rides where specific engineering specification data is lacking, the engineering section may not require a structural analysis on slow moving rides such as, but

not limited to, merry-go-rounds and "kiddie rides" where the basic design has been proven safe through years of operation. A license to operate, however, will be required.

5.17: Required Testing

Load tests or nondestructive tests of rides or component parts of rides may be required by the engineering section. Procedure for such tests shall be submitted to the engineering section for approval.

5.18: Emergency Brakes and Anti-Roll-Back Devices

If cars or other components of an amusement device may collide upon failure of normal controls, an emergency control sufficient to prevent such collisions shall be provided. On devices which make use of inclined tracks, automatic anti-roll-back mechanism shall be installed, if required by the authorized inspector, to prevent the backward movement of the passenger-carrying units in the case of failure of the propelling mechanism.

5.19: Fencing

(1) *General.* Amusment ride or device shall be provided with fences, handrails, guards and barriers, or other apparatus and controls as may be necessary to do the following:
   a. Confine operating staff and patrons within the boundaries of the device to safe areas.
   b. Ensure the safety of persons in the vicinity of the device, but not immediately participating in the activity of the device.
   c. Ensure the safety of the operating staff.

(2) *Fencing.* Fencing, where required, shall have sufficient strength and stability and shall:
   a. Delineate the zone of concern
   b. Be not less than 3 feet in height above the adjacent surface,
   c. Be constructed to effectively prevent any person from moving through it our under it thus impeding unaided access to the zone of concern.

(3) *Guards.* Guards, where provided, shall prevent a person from reaching (with any part of their body) into the clearance space wich applies to any vehicle of an amusement device. Guards, whether in combination with fences or other means shall also prevent any person from reaching within three (3) feet of any moving part of the device with any part of their body.

(4) *Barriers.* Temporary barriers, where provided shall not be less than three (3) feet in height, and shall reamin stable wihn loaded by a horizontal force of fifteen (15) pounds, applied in any direction, to the uppermost edge. They shall be painted a distintive color and shall carry signs marked “NO ACCESS” in lettering not less than 1” in height and of contrasting color, at appropriate intervals along their length.

5.20: Signage

General. Where required, signs for the contrl of patrons, the safe use of a device or the operating restrictions for a device shall be prominently positioned, clearly legible and of a cinsistent presentation. The information on such signs shall include the

following:

a. The minimum or maximum allowable height of patrons,
b. Advice on physical strength required where forces created by the device may demand limb use or body control.
c. Advice for patrons who are ill, under medication, or under the influence of alcohol or drugs,
d. Advice on the potential for motion sickness,
e. Any other specific advice about the safe operation of the device.

5.21: Electrical

The Department hereby adopts, by reference, the 1999 National Electrical Code as it pertains to amusement devices.

Local electrical permits shall only be required for those electrical systems that require hard wiring work, performed by a Massachusetts licensed electrician. Laying of extension cords from one plug connection to another plug connection does not require the pulling of a local electrical permit.

Local electrical inspectors have the authority to inspect any electrical device to ensure that it is safe and installed in accordance with the National Electrical Code.

5.22: Governors and Speed Limiters

An amusement device having the capability of exceeding its maximum safe operating design speed shall be provided with a maximum speed limiting device. All governors having an adjustable speed setting shall be sealed so that the adjustment cannot be changed above the maximum safe operating speed without breaking the seal. If the seal is broken, the governor shall be readjusted and resealed by a competent mechanic skilled in such governor mechanism, prior to again putting the ride in service, and the authorized inspector shall be notified of the change within five days.

5.23: Signal Systems

Signal systems which will warn operators against dispatching other passenger carrying units in the event a previously dispatched unit has failed to clear, an automatic stop shall be provided on all amusement devices where the lack of such a system may permit rear end collision and injury to passengers. Signal systems for the starting and stopping of amusement devices shall be provided where the operator of the ride does not have a clear view of the point at which passengers are loaded or unloaded. Where the need for coded signals is indicated, any code of signals adopted for the operation of any amusement device shall be printed and be kept posted at both the operator's and signal man's stations. Such signals shall be thoroughly understood by all persons who use them. Signals for the movement of rides shall not be given until all passengers are safely within or debarked from the device and all persons are clear of any moving parts. All signal systems shall be tested daily before the operation of the device. When an improper function of the signal system occurs the device shall not be used until the signal system has been repaired and in

proper working order.

5.24: Passenger Carrying Devices

The interior and exterior parts of all devices with which a passenger may come in contact shall be smooth, free from sharp, rough or splintered edges and corners. There shall be no protruding studs, bolts, screws or other projections. Interior parts upon which, or against which a passenger may be forcibly thrown by the action of the ride shall be adequately padded. Belts, bars, footrests and other equipment necessary for safe entrance, exit and support while the ride is in operation shall be provided and maintained in a safe condition. Such equipment and the fastenings shall be of sufficient strength to restrain the passengers against all forces generated by the operation of the ride.

5.25: Self-Powered Devices

Devices that are self-powered and that are operated by passengers shall have the driving mechanism so guarded and the guards so secured in place as to prevent passengers from gaining access to the mechanism. The "Dodge Em" type of ride shall have the overhead screening free from holes that will catch the power conducting device and allow it to hang up or to cause a whipping action of the power supply mast.

5.26: Restraints and Locking Systems

(1) Application Restraints shall be fitted, or adequate protection provided where, because the nature of the device, patrons may—

ii. Be ejected owing to the motion of the device (see 5.22 (6))

iii. Be moved suddenly and unexpectedly within the vehicle or may collide with protrusions adjacent to the device (see 5.22 (7))

iv. Increase the risk to themselves or others through not being seated for the duration of the ride (see 5.22(8))

Considerations should be given to the partial restrain offered by the design of the vehicle, seat configuration, and other inherent restraint features. Restraints using mechanical releases are not considered suitable for water-borne rides.

(2) General Restraint equipment shall be of the type which is secure and comfortable for the patron. Adjustible restraints shall be designed to facilitate easy adjustment. Bars, belts, harnesses, supports, locks and catches shall be of sufficient strength to withstand the forces applied to them under normal operating conditions.

Restraints shall be capable of easy operation and designed to prevent accidental release by the movement of the patron or by the motion of the device.

(3) Fastening Restraint equipment shall be securely fastened to structural members of the vehicle. Where bolts are used, the nuts shall be made captive. Screws shall not be used.

(4) Non-adjustable restraints and locking devices Where restraints and locking devices are not adjustable, signs shall be displayed relative to the minimum and maximum size of patrons permitted on the device.

(5) Connection to entry. Where the restraint forms part of or is attached to an entry door, gate, or similar, on a vehicle, a back-up lock or catch shall be provided in addition to the normal lock or catch.

(6) Interlocking restraints Where the motion of an amusement device is such that there is a risk of patrons being ejected from the device, restraints shall be interlocked with the device controls as follows:

v. All restraints shall be locked in the riding position by a positive means and the relase mechanism shall be inaccessible to patrons. Release actuators shall be provided in positions accessible in an emergency to persons other than the patrons while the device is at any stage of its operational cycle.

vi. For normal operation, release actuation may be achieved either by automatic means or direct actuation by operation staff at the loading and unloading locations. Automatic activation shall occur only while the device is stationary at the unloading position.

vii. Means shall be put in place to confirm the locked condition of all restraints before a device reaches the point of its operational cycle beyond which the safety of the patrons could be compromised. Such means shall be automatic and shall stop the device until such intervention as may be necessary by operating staff is completed.

In any arrangement, a provind device on each restraint, interlocked with the control system to prevent dispatch from the loading position, satisfies the requirement.

(7) Non interlocking restraints Where there is no risk of patrons either being ejected due to the motion of an amusement device or falling off or out of the device, but where the motion of the device may move patrons suddenly and unexpectedly, or therre is a risk of patrons colliding with protrusions adjacent to the device, restraints shall be locked in the riding postion by a positive means. The release mechanism may be accessible to patrons.

(8) Other restraints Where it is desired that patrons remanin seated for the duration of the ride, bt there is no vigorous motion or protrusions with which patrons could come into contact, a lap belt restraint may suffice and the release mechanism may be accessible to patrons.

(9) Exceptions Where a hazard identification and risk assessment prosess has shown that, because of the nature of the device, a safer outcome is achieved by enabling the patron to part company with the vehicle in the event of a collision (i.e. bobsleds) then restraints need not be provided.

(10) Cushioning Cushioning shall be provided for restraints and the surfaces of vehicles with which patrons may come into contact through the movement of the device in such a way that an injury could occur.

(11) Design The design of locks and catches on vehicles shall give clear visual indication of the latched and unlatched positions, be positive in operation, spring-assisted where necessary, and be located so as to prevent inadvertent release by patrons. The loss of any spring tension shall not cause a lock of catch to release.

(12) Locking Pins Pins used to secure locks or catches shall be of the type that can be inserted without the need of tools, and shall be designed so that loss of any spring tension will not cause the pin to separate from the lock or catch.

(13) Prevention of sliding of patrons For single seats where foot support is not provided, either the shape of the seat shall be such that a patron cannot slide from under a laptype bar, belt, or chain restaint, or an additional crotch strap or chain shall be provided.

(14) Reverse motion Devices shall not be operated in reverse motion unless the restraints have ben specifically designed for this purpose.

5.27: Supporting Structures

All supporting structures used in connection with amusement devices shall be designed and constructed to carry safely, and with a proper allowance for wind forces, centrifugal forces, inertia forces and dynamic effects of the equipment, load reversals and repetitions of all loads to which such structure footings may be subjected. All rides designed for solid footing shall be placed on solid footings and be anchored to prevent shifting or tipping. The use of shim blocks shall be kept to a minimum. Sandbags may be used on concrete or other hard surfaces to help stable anchorage of structures. Depressions in the ground near the amusement device footings shall be filled and tamped. Drainage shall be provided to prevent water from collecting and softening supporting areas in case of rain, water or other liquids. The area around the device shall be cleared and kept free from trash and tripping hazards.

Blocking shall be of timber, or reinforced concrete that is free from defects. They should be square or rectangular scetions and cut cleanly with parallel sides. Masonary blocks, bricks, etc shall not be used as blocking for short term set ups, and should only be used in permanent installations.

Brittle fibre composites shall not be used in blocking.

No block, or stack shall have a ground bearing area dimension less than that of the load point (float, jack, etc.) to which it applies. Blocking in ground contact in any

circumstance should provide an area not less than 8 inches x 8 inches.

Blocking stacks shall be assembled from the minimum number of individual blocks, constructed in alternate layers of increasing dimension (from the top down) so as to maintain stability. Shims installed to level and stabilize layers shall be fixed by nailing as the layers are constructed.

5.28: Daily Operation Test and Inspection

All amusement devices shall be inspected, tested and operated each day before they are used. The inspection and test shall be made by a person certified to be competent for such work by the owner or user of the device and shall include the testing while in operation of control mechanisms, speed limiting devices, brakes, fastenings, systems and other equipment provided for safety and the proper installation and connection of the safety devices required by the engineering section of the Department of Public Safety or an authorized inspector.

5.29: Assembly and Disassembly

The assembly and disassembly of an amusement device shall be performed by skilled persons under the supervision of a person who has been qualified and authorized by the owner or user to perform such work. The work shall be performed in a proper and workmanlike manner. Parts shall be properly aligned and shall not be bent, distorted, cut or otherwise damaged in order to force a fit. The use of drift pins is expressly forbidden. All parts requiring lubrication shall be lubricated with the type of lubricant that is recommended for that particular purpose. Excess lubricant shall be wiped clean. Fastening and locking devices shall be installed wherever they are applicable for safe operation. Makeshift devices shall not be used. All bolts and nuts shall fit the fastening holes and be equipped with the proper nuts and designed locking devices. Whenever openings are provided for cotter pins, such pins of the proper size, material and fit shall be used and a castellated nut shall wherever possible be used with a cotter pin and the pin shall be properly spread. All junction boxes shall be kept locked or properly secured with machine screws while in use. When "U" bolt clamps are used for wire rope attachments, at least three clamps shall be used with the "U" bolts on the short or "dead" end of the wire.

5.30: Quality and Inspection of Parts

Parts that are excessively worn, pins that are out of round or with worn shoulders shall not be used. Material shall not be substituted for worn material unless it complies with the physical and chemical characteristics of the original part. Damaged material shall not be used. Nails or barrel pins shall not be substituted for bolts or other fastening devices. Close visual inspection of parts shall be made during assembly to discover wear or damage and inspection of fastening devices shall be made for assembly and before the ride is placed in service to assure that they have been properly installed. The discovery of a crack

or the appearance of a crack in any part that is stressed shall require an immediate inspection by a qualified procedure of nondestructive testing applicable to the geometry of the part, dye penetrant, magnetic particle, X-ray or gamma graph are acceptable methods of test. Verification of crack shall require immediate repair or replacement of the part. Whenever welding on amusement devices or their component parts is required, the welding shall be performed by a welder who has been qualified to a procedure that has been drawn up, tested and approved by a welding engineer. The procedure shall fulfill the requirements of ASTM.

5.31: Tools and Equipment

Persons engaged in the assembly or disassembly of amusement devices shall be provided with and shall use tools of proper size and design to enable the work to be performed safely. Broken, damaged and unsuitable tools shall not be used.

5.32: Facilities and Control of Operation for Attendants

(1) Control of Operation. All amusement devices other than passenger-operated or passenger-controlled devices shall be operated only by an attendant as defined in this regulation. The attendant shall be at the console or operating controls while the device is in operation even if automatic devices are used to control the time cycle of the device. No unauthorized person shall be permitted to handle the operating controls during normal operation except when an authorized attendant is teaching or qualifying a new person for approval as an authorized attendant. There shall be a minimum of one attendant operator for each amusement device that is in operation and they shall attend their assigned device and no other device while such device is in operation. All amusement devices where practicable shall have an emergency stopping mechanism within reach of the attendant for use in case of an emergency. Every electrically driven amusement device shall have a disconnect switch of either the direct type, or of solenoid operated type within reach of the attendant at their control station or console for use in case of an emergency.

(2) Facilities for Attendants. Where an operator or attendant is required to be on, in, or travel with an amusement device while it is in motion, facilities shall be provided to ensure against the operator or attentant slipping, falling, or being suddenly and unexpectedly moved about, and against coming into contact with moving parts of machinery or structural components.

5.33: Public Protection

Each amusement device shall not be used or operated while any person is so located as to be endangered. Areas in which persons may be so endangered shall be fenced, barricaded or otherwise guarded against public intrusion.

(1) Refusal of admission. The owner/operator of an amusement device shall have the right

to refuse any member of the public admission to a ride if his/her bearing or conduct could endanger him/her or other members of the public.

Reasons for refusing admission to a ride include, but is not limited to, the following:

1. Intoxication,
2. Under the influence of drugs,
3. Refusal to obey posted rules,
4. Unacceptable or unsafe behavior as determined by the operator of the ride.

(2) Height restrictions. The owner/operator shall refuse a person(s) admission to a ride if the passenger can not meet the height restriction of a ride as posted. Legible signs to this effect shall be posted in full wiew of the public seeking admission to the ride.

5.34: Required Inspections

Each amusement device shall receive certification in writing by an authorized inspector that it meets the requirements established by the engineering section of the division of inspection of the Department of Public Safety.

Note: If the manufacturer of an amusement device submits to the engineering section an accepted stress analysis for such device, certified by a registered engineer, the engineering section may, upon inspection of the device, issue an original certification of inspection. The original certificate of inspection shall not be issued for any amusement device until certification has been made and filed with the engineering section. The certificate of inspection and the certification will become void if the device is rebuilt or modified in a manner that will affect the structural design or strength. A registration number shall be obtained from the engineering section and will be issued with the original certificate of inspection and this number will remain in effect until the engineering certification is voided by modification. If the device is recertified following any modification the new certificate shall have the same number as originally used followed by a dash--and letter M followed by the digit one (1); any later modifications shall have added digits in numerical sequence as 2, 3, 4, 5, etc.

5.35: Inspector's Duties

The authorized inspector will certify in writing, that in his opinion the device, its appurtenances and control systems can conform to the rules and regulations required by M.G.L. c. 140, Sec. 205A. He shall state any orders which he deems necessary to insure the safety of the persons using the device, including seating arrangements, entrance, egress, lighting, fire fighting and such other provisions that will make the device reasonably safe against both casualty and fire hazards.

5.36: Examinations and Tests

(1) Air Compressors. Air compressors and their appurtenant mechanisms and control

systems that are operated by compressed air shall be thoroughly examined for safety operation. Air receivers and safety valves shall comply with the requirements of the A.S.M.E. code, section VIII division one. A test of such compressors and systems shall be made to assure the authorized inspector that the device is within its designed range of operation and that no changes from the original design have been made unless such change has been approved by the manufacturer of the device and with the signed, stamped and sealed approval of a registered professional engineer.

(2) Modular Units. Whenever amusement devices are set up with modular units and all of the pins and bolting materials have passed an annual inspection and are wired together with aircraft type wiring, such modular units shall only receive a cursory inspection to ascertain that none of the security wires or pins or bolting are broken, worn, or chafed and that the threads of bolts and nuts are not worn to the next lower class of fit nor cracked.

(a) Nondestructive Test. If in the opinion of the authorized inspector any of the stressed materials give the appearance of excessive wear, cracking or other defect he shall order such nondestructive test such as dye penetrant, magnaflux or X-ray that he requires in order to assure himself that the material is safe for the purpose intended.

(b) Clevis Pins. Clevis pins are not permitted in any stressed location or in such a position that the pin can fall out of its intended position or work out of its position by vibration, friction or other means.

(c) Connections of Modules. The bolting up of devices having modular units shall be given special attention during the inspection procedure. The inspector must assure himself by any means that he considers adequate, that the connecting devices have a minimum factor of safety that will safely support the passengers against any compressive tensile or torsional forces that may be developed by the device, its fixtures or appurtenances.

(3) Electric Motors and Generators. Electric motors and generators shall be tested at the annual inspection and at each new setup following the annual inspection. Improper bonding or ground shall be sufficient reason for rejection. Excessive end thrust, loose bearings, loose keyways, improper belt tension, improper belt guards, mismatched belts, worn belts, improper use of "V" belts or twisted belts shall be sufficient reason for rejection. Excessive or insufficient or improper lubrication shall be sufficient reason for rejection. Electric cables connecting devices to the power source whether from a public utility or from a self-contained, gasoline or diesel driven source shall be examined for abrasion and grounding.

(4) Wire cables, yokes, clips, chains, slings, etc. All wire cable, clips, sockets, yokes, hooks, chains and similar fixtures shall be examined for excessive wear, abrasion and deformation or corrosion. They shall be further identified to assure the inspector that they are suitable for the use intended and of sufficient strength. When used for structural stabilization they shall be further checked for the correct number, angle and anchorage for

their intended use.

(5) Support and Balance. Each amusement device shall be properly attached to its foundation and structural supports in such a manner that the structure is in a firm, level and plumb condition, properly anchored on a foundation adequate for the load imposed and does not sway.

The device shall be balanced both statically and dynamically to the point that it is safe for the public to use. Authorized attendants must be instructed to properly load the device so that no eccentric forces are generated by the motion of the ride.

(6) Nonmodular Devices. Devices that are nonmodular in erection will receive all of the foregoing inspections and in addition every individual connection shall be examined and inspected in a similar manner.

(7) Cost of Test. The expenses involved in performing any tests either electrical, nondestructive or destructive shall be borne by the owner, operator or user of the device. Nondestructive testing shall be performed by technicians qualified by the Society of Non-Destructive Testing Procedures.

5.37: Miscellaneous Provisions

(1) Inspector Training. The Department shall provide annual inhouse training for all state inspectors at the beginning of each amusement season. In addition, if granted by legislation, the Department shall utilize the revenue generated by the inspection and certification of amusement devices toward supplimenting the Department inhouse training by sending inspectors, as finances allow, to amusement safety seminars provided by nationally recognized amusement organizations, and to provide inspectors with the opportunity to obtain certification as an inspector of amusement rides from nationally recognized certification programs. Such programs include but are not limited to NAARSO, AIMS, and CARES.

(2) Power of Attorney. The owner or user of amusement devices covered by 520 CMR 5.00 shall give a power of attorney for service of process to the Commissioner of Public Safety, or his designee or successors in office, notarized, and in writing. Such owner or user shall agree that any process, action or proceeding against him may be served, and shall have the same legal force and validity as if served on him and that such appointment shall continue in force as long as any liability remains outstanding against the owner or user in the Commonwealth of Massachusetts.

(3) Penalty. Whoever violates any of the provisions of M.G.L. c. 140, Sec. 205A (Ter. Ed.) shall for each such violation be punished by a fine of not more than $1000 or by imprisonment for not more than one year or both.

Appendix A

Application to operate amusement devices (for permit to operate – annual owner)

PERMIT NO. _____

Commonwealth of Massachusetts
Department of Public Safety
Engineering Division
One Ashburton Place, Room 1301
Boston, MA 02108-1618
Tel: (617) 727-3200 x25218
Fax: (617) 248-0813
WWW.STATE.MA.US/DPS

APPLICATION FOR PERMIT TO OPERATE AMUSMENT DEVICES

Application is hereby made for a permit to operate the listed amusement devices. The listed permit fees are submitted in compliance with Chapter 140 of the General Laws, Chapter 807 of the Acts of 1974, and the rules and regulations (520 CMR 5.00) established by the Department of Public Safety in accordance with the requirements of Chapter 30A of the General Laws.

_____ *(Print name of Company)*

_____ *(Date of Application)*

_____ *(Company Website Address)*

_____ *(Phone Number)*

_____ *(Print Contact Name)*

_____ *(Fax Number)*

_____ *(Contact Name E-Mail Address)*

_____ *(Contact Name Title)*

_____ *(Company Street Address)*

_____ *(Company City, State, Zip Code)*

The following information must accompany this application (please check as attached):

- ☐ A completed itinerary on a form supplied by the Department
- ☐ A check payable to the Commonwealth of Massachusetts ($25 per device)
- ☐ An original insurance certificate ($1,000,000 minimum)
- ☐ A completed insurance inspectors report on an approved form
- ☐ Manufacturers Data Report for each ride (if not currently on file)
- ☐ Repair / Maintenance Report for each ride (as required)

Mail this application and the accompanying information to the address as listed above.

I certify under the penalties of perjury that to the to the best of my knowledge and belief that I have filed all state tax returns and paid all state taxes required under state law.

_____ *(Signature of owner)*

_____ *(Date)*

_____ *(Print Last Name)*

_____ *(Social Security Number)*

Note: Permit will not be issued unless this document has been completed and signed by the owner.
(Authority: Chapter 62, section 49A, Massachusetts General Laws as amended by Chapter 233, Acts of 1983.)

Appendix A

Application to operate amusement devices (back side)

	State Number	Name of Device			State Number	Name of Device
1				37		
2				38		
3				39		
4				40		
5				41		
6				42		
7				43		
8				44		
9				45		
10				46		
11				47		
12				48		
13				49		
14				50		
15				51		
16				52		
17				53		
18				54		
19				55		
20				56		
21				57		
22				58		
23				59		
24				60		
25				61		
26				62		
27				63		
28				64		
29				65		
30				66		
31				67		
32				68		
33				69		
34				70		
35				71		
36				72		

Appendix A

Application to operate amusement devices (supplemental page)

* Permit to Operate Amusement Device Supplemental Form

	State Number	Name of Device
73		
74		
75		
76		
77		
78		
79		
80		
81		
82		
83		
84		
85		
86		

	State Number	Name of Device
87		
88		
89		
90		
91		
92		
93		
94		
95		
96		
97		
98		
99		
100		

Mail the completed application along with the required information attached, and the fee (bank check or money order only) to:

Massachusetts Department of Public Safety
Attn: Sandy Pickering - Amusements
1 Ashburton Place, Room 1301
Boston, MA 02108-1618

Appendix B

Amuesement Device Itinerary

Page _____ of ______

Submit one copy

The Commonwealth of Massachusetts

Department of Public Safety

Amusement Device Itinerary

(Print name of Company)	(Date)
(Company Address)	(Phone Number)
(Print Contact Name)	(Contact E-Mail Address)

All itineraries must have a complete location address to fall under the scope of the permit.

Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:

Appendix B

Amusement Device Itinerary (back side)

Page ____ of ______ Submit one copy

Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:
Location:		Location:	
Date arrive on lot:		Date arrive on lot:	
From:	To:	From:	To:

Appendix C

Manufacturers Data Sheet

FORM M-1 MANUFACTURER'S DATA REPORT FOR AMUSEMENT DEVICES

1. Manufactured by: _____ *(Name and address of Manufacturer)*
2. Manufactured for: _____ *(Name and address of purchaser)*
3. Location of installation: _____ *(Name and Address - permanent device only)*
4. Manufacturer's Name for Device: _____
6. Manufacturer's Model Number: _____ *(manufacturer model number)* Serial Number: _____ *(manufacturer serial number)*
5. Manufacturer's Address _____ *(Street)* *(City/State)* *(Country / Zip Code)*
6. Date of manufacture: _____ *(Date)* Date of purchase: _____ *(Date)*
7. Name for Device if different from manufacturer's name: _____
8. Primary State of Registration: _____ *(State)* State Registration Number: _____ *(State or C.A.R.E.S. No.)*
9. Safety Devices: Rider restraining device: _____ *(interlocking / non-interlocking / other / automatic set)*
   Operator set ☐ Patron set ☐ Type: _____ *(lap, lap/sash, over shoulder etc)*
   Overspeed device: _____ *(device used)*
   Deadman switch: _____ *(type used)*
   Secondary safety devices: _____ *(device used)*
   Secondary safety devices: _____ *(device used)*
10. All materials used in the construction of this device conform to the following code(s):
    _____ *(List codes used in design and construction of this device)*
11. Maximum RPM: _____ RPM 12. Maximum designed load per car/tub: _____ pounds
13. Power Supply
    Voltage: _____ Number of phases: _____ Frequency: _____ KVA or kW rating: _____
14. Engine detail (if integral part of ride or device)
    Type of engine _____ KW rating: _____ Drive: _____ *(electric or hydraulic)*
15. Maximum number of patrons permitted on or in device at any one time: _____
16. Maximum number of patrons permitted within any vehicle for ride cycle: _____
17. Maximum G-Force that may be applied to any patron during the duration of a ride cycle: _____
18. Minimum number, size and rating of fire extinguishers to be carried: _____
19. Direction of rotation: _____ 20. Maximum cycle time for ride operation: _____

Appendix C

Manufacturers Data Sheet (back side)

21. Data Supplied: *(indicate here what data is supplied with ride and is expected to remain with it)*

		Yes	No	Other (see attached)
a.	Assembling /disassembling instructions	○	○	
b.	Operation / maintenance manual or instructions	○	○	
c.	Periodic safety inspection checklist	○	○	
d.	Emergency procedure checklist	○	○	
e.	Engineering Computations	○	○	
f.	Listing of components which, if subject to failure, could lead to danger	○	○	
g.	Drawings			
	General arrangement	○	○	
	Component drawings	○	○	
	Electrical wiring diagrams	○	○	
	Hydraulic / pneumatic schematics	○	○	
h.	Hazard / risk assessment documentation	○	○	
i.	Other data unique to this device	○	○	

CERTIFICATE OF ACCEPTANCE TESTS

22. Name of testing organization: _____

23. Address of testing organization: _____
(street) *(city / state / country / zip code)*

24. Name of person(s) conducting tests: _____
(Name) *(Certification held / Cert. No.)*
(Name) *(Certification held / Cert. No.)*

25. Date of testing: _____

26. TEST PROCEDURE — LOAD APPLIED

Over/full load:	/ /	Percent of full load _____
Partial load:	/ /	Percent of full load _____
Imbalance/stability:	/ /	Percent of full load _____

Number of vehicles used for imbalance or instability test: _____

27. General Description: Mobile or portable ❑ Fixed location (park model) ❑
Trailer mounted operation: ❑ Independent of trailer operation ❑

29. Signature of tester: _____

30 Signature and status of witness: _____

31 Initial owner (if known): _____

I, the undersigned, holding a valid Professional Engineers Stamp Number, or Certificate of Competency to Inspect Amusement Devices Number _____ issued in the state or province of _____ and employed by _____ have inspected and tested the parts of the amusement device referred to in this data report, and state that to the best of my knowledge and belief, the manufacturer has constructed this amusement device in accordance with _____.

By signing this certificate neither the inspector nor their employer makes any warranty, expressed or implied, concerning the amusement device described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor their employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____ Signed _____ Commissions _____
(Commissioned Inspector) *(A.I.M.S., NAARSO or Jurisdictional Commission)*

Appendix D

Incident / Accident Report

Commonwealth of Massachusetts
Department of Public Safety

This form must be faxed to the Department at (617) 248-0813 within 24 hours of incident

AMUSEMENT INCIDENT REPORT

OWNER INFORMATION

Device Owner		Device State Tag #	
Owner Address		Ride Serial Number	
Owner City/ZIP		Month/Year Purchased	
Owner Contact		Purchased From:	
Owner Phone #		States operated in:	

INSURANCE / INSPECTION INFORMATION

Insurance Expiration Date:		Insurance Documentation Received Date	
Ride Inspector:		Inspector Commission #:	
Ride Inspection Dates:			
Type of Inspection / Inspection comments:			

MANUFACTURER INFORMATION

Ride Name		Type of ride (fixed or mobile)	
Manufacturer Name		Year of Manufacture	
Manufacturer Address		ASTM Standard applies? (Y/N)	
Manufacturer City/State		Number of rides made:	
USA Representative		Model Numbers / Names:	
Manufacturer Phone #			

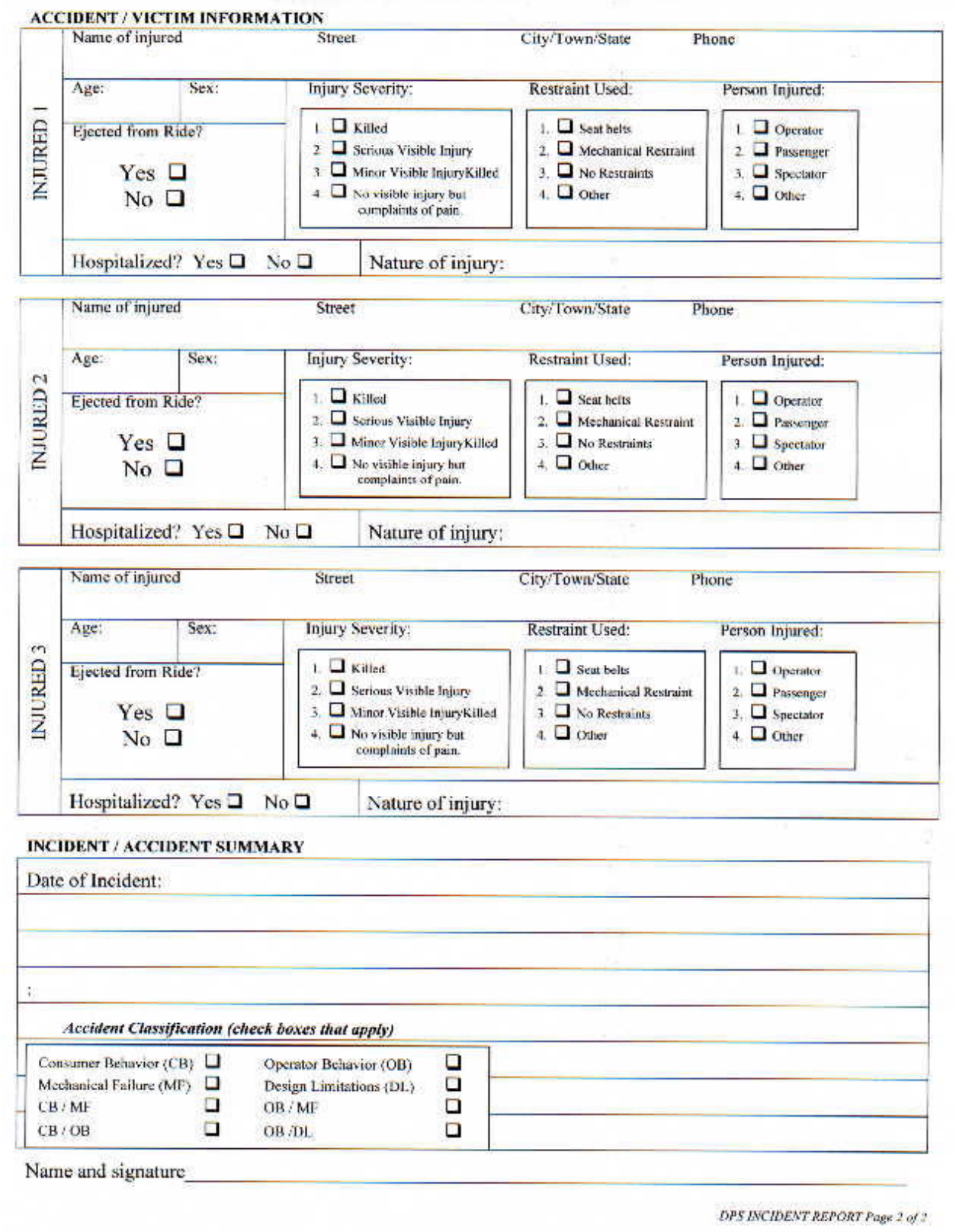
WITNESS INFORMATION

	NAME OF WITNESSES OR PERSONS PRESENT	ADDRESS	PHONE
WITNESSES			

DPS INCIDENT REPORT Page 1 of 1

Appendix D

Incident / Accident Report (back side)



ACCIDENT / VICTIM INFORMATION

INJURED 1

Name of injured | Street | City/Town/State | Phone

Age: | Sex:

Ejected from Ride?

Yes ☐
No ☐

Injury Severity:
1. ☐ Killed
2. ☐ Serious Visible Injury
3. ☐ Minor Visible InjuryKilled
4. ☐ No visible injury but complaints of pain

Restraint Used:
1. ☐ Seat belts
2. ☐ Mechanical Restraint
3. ☐ No Restraints
4. ☐ Other

Person Injured:
1. ☐ Operator
2. ☐ Passenger
3. ☐ Spectator
4. ☐ Other

Hospitalized? Yes ☐ No ☐ | Nature of injury:

INJURED 2

Name of injured | Street | City/Town/State | Phone

Age: | Sex:

Ejected from Ride?

Yes ☐
No ☐

Injury Severity:
1. ☐ Killed
2. ☐ Serious Visible Injury
3. ☐ Minor Visible InjuryKilled
4. ☐ No visible injury but complaints of pain.

Restraint Used:
1. ☐ Seat belts
2. ☐ Mechanical Restraint
3. ☐ No Restraints
4. ☐ Other

Person Injured:
1. ☐ Operator
2. ☐ Passenger
3. ☐ Spectator
4. ☐ Other

Hospitalized? Yes ☐ No ☐ | Nature of injury:

INJURED 3

Name of injured | Street | City/Town/State | Phone

Age: | Sex:

Ejected from Ride?

Yes ☐
No ☐

Injury Severity:
1. ☐ Killed
2. ☐ Serious Visible Injury
3. ☐ Minor Visible InjuryKilled
4. ☐ No visible injury but complaints of pain.

Restraint Used:
1. ☐ Seat belts
2. ☐ Mechanical Restraint
3. ☐ No Restraints
4. ☐ Other

Person Injured:
1. ☐ Operator
2. ☐ Passenger
3. ☐ Spectator
4. ☐ Other

Hospitalized? Yes ☐ No ☐ | Nature of injury:

INCIDENT / ACCIDENT SUMMARY

Date of Incident:

:

Accident Classification (check boxes that apply)

Consumer Behavior (CB)	☐	Operator Behavior (OB)	☐
Mechanical Failure (MF)	☐	Design Limitations (DL)	☐
CB / MF	☐	OB / MF	☐
CB / OB	☐	OB /DL	☐

Name and signature _____

DPS INCIDENT REPORT Page 2 of 2

Appendix D

Incident / Accident Report (page 3)

INCIDENT / ACCIDENT SUMMARY (SUPPLIMENTAL SHEET)

Witness or Victim Reporting:

Name and signature_____

DPS INCIDENT REPORT Page 3 of 3

Appendix E

Repair / Maintenance Report

Page _____ of _____ Submit one copy per device

The Commonwealth of Massachusetts

Department of Public Safety

Repair / Maintenance Report for Amusement Devices

(Print name of Company) *(Device Name and State/Identification Number)*

(Company Address) *(Phone Number)*

(Print Contact Name) *(Contact E Mail Address)*

Record of all repairs and alterations affecting the safety of the amusement device for previous season, as well as all NDE performed. This report must be submitted with application for permit to operate amusement devices and signed by the authorized inspector.

Date of Repair / NDE	Details of work performed	Name and address of person/firm performing work	Whether assessed prior to repair and by whom

I certify, that I have inspected the parts on the amusement device referred to in this report and state that to the best of my knowledge and belief, the repairs, alterations and NDE examinations were performed in accordance with Massachusetts Regulation 520 CMR 5.00.

Massachusetts Commissioned Amusement Inspector

Appendix E

Repair / Maintenance Report (back side)

Page _____ of _____ Submit one copy per device

Date of Repair / NDE	Details of work performed	Name and address of person/firm performing work	Whether assessed prior to repair and by whom

Commonwealth of Massachusetts
Department of Public Safety
Daily Amusement Inspection Log

_____
Name of Device

_____
State Tag Number

DATE / LOCATION OF INSPECTION

It is the responsibility of the operator of each device to insure proper and safe operation of the device and related equipment. OK - Satisfactory UN - Unsatisfactory NA - Not Applicable												
1. Safety belts, bars, locks and other passenger restraining devices												
2. All automatic and manual safety devices												
3. Signal systems, brakes and control devices												
4. Safety pins and keys												
5. Fencing , guards, barricades, stairways and ramps												
6. Ride structure and moving parts												
7. Tightness of bolts and nuts												
8. Blocking, support braces and jackstands												
9. Electrical equipment, properly grounded												
10. Lubrication as per manufacturers recommendations												
11. Test communication equipment necessary for operation (if applicable)												
12. Prior to opening, operate ride through once complete cycle to ensure safe and proper functioning of all controls and devices.												
Ride Operator's Initials :												

Comments

_____

_____

Ride Supervisor/Date_____ Safety Coordinator/Date_____

** All Accidents requiring professional medical attention must be reported to the Department at 617-727-3200 **

Appendix H

The 2001 Inspectional Guide for Amusement Devices

Compiled by Henry Geryk, P.E.

I. Scope

(a) Is the device(s) being investigated within the scope of 520 CMR 5.00? (See 520 CMR 5.02 for definition of Amusement Device)

II. Attendants

(a) Is the attendant of amusement device(s) a person who is competent, experienced and instructed in the operation of amusement devices?
(b) Has the attendant been given the responsibility to perform his duties by the owner, user or operator of amusement devices or by their agents, servants or representative?
(c) Is the attendant licensed by the engineering section of the DPS?

III. Certificate of Inspection

(a) Was an original certificate of inspection issued by the designee of the Commissioner following certification, in writing, by a Mass. registered PE who is not employed by the manufacturer of the amusement device, that the amusement device meets the requirements of safety adopted or established and in general use for such amusement devices?

V. Licensing

(a) Has the certificate of insurance for the device been legally registered with the dept. by a liability insurance carrier which has been authorized by-the Dept. Of Banking and Insurance to write public liability and property damage?
(b) Was the device inspected and approved for use by an authorized inspector before operating?
(c) Did the owner, operator, or user of amusement device apply to the Engineering section for a license to operate within the Commonwealth at least ten days of first operating such device?
    1. Were any changes in the dates or locations listed with the Engineering section in writing, at least ten days in advance, whenever possible, of the first operating day for the new or changed locations?
    2. Under certain control circumstances, did the operator or authorized designee notify the DPS by telephone call, and a personal visit to the office of the Engineering Section, or the nearest branch office where the carnival is located? (Note: Kiddie rides under 10 RPM are exempt but shall notify the Dept. as soon as possible that they are located in an area, or immediately after the next business day)

V. Issuing of Licenses, Transient Devices.

(a) Did the Engineering section receive the inspection forms and certification that the device complies with the rules and regulations of the Commonwealth so that a license to operate the specific ride could be issued?

(b) Is each license conspicuously displayed an the grounds of the amusement center?

VI. Use of Expired License.

(a) For the license to be extended for five days:

1. Was the amusement device issued a license during the previous year?
2. Did the owner or user make an application to the Engineering section?
3. Is the owner unable to obtain inspection from his insurance carrier?

VII. Identification of Device

(a) If amusement device comes within the confines of M.G.L. c.140, s.205A is it identified by a registration number issued by the engineering section, to his insurance carrier?
(b) Has the number been die stamped in digits and/or letters not smaller than 3/16" nor larger than 5/16" or a corrosive metal plate that is not easily abraded?
(c) Is the following required information included on the plate:
   1. Name and manufacturer of the device.(if known)
   2. A trade or descriptive name.
   3. A model or serial number (if any).
   4. The maximum number of passengers.
   5. The maximum safe speed.
(d) Is the plate readily visible and legible at all times?

VIII. Rebuilt and Modified Devices

(a) If an amusement ride is altered or modified in a manner that changes its original action, motion pattern or structure, has the following been done:
   1. Has the owner notified the engineering section of such action before proceeding with the change?
   2. Has a Mass. P.E. skilled in stress analysis provided a certified stress analysis with appropriate calculations covering the proposed changes for the examination of the engineering section or its consultants?
   3. If the changes affect the operational safety, are the changes acceptable to not less than three district engineering inspectors of the DPS and their consultants?
   4. Has a new certificate of inspection and a new license been issued?

IX. Accident Notification

(a) If an accident occurs on an amusement device that results in death, dismembering injury or an injury which requires admission to a hospital as a result of the malfunction of the device or an accident which results in major damage to the device or any of its component systems, has the license to operate it been suspended?

(b) Was the accident reported to the engineering section of the DPS within 48 hours from the time that the accident occurred?
(c) Was the amusement device not moved from the site of the accident until authorization was granted by the authorized inspector? (See 520 CMR 5.06 for exceptions)
(d) Has the device and area surrounding the device not been disturbed, cleaned up or altered to an extent that will impede the investigation?
(e) Was the investigation started within eight hours of notification of such accident?
(f) If an injury occurs to a person and is known or reported to the show owner/operator during the operation, starting, stopping, entrance to or egress from an amusement device which is covered by 520 CMR 5.00, or by the statutes contained in M.G.L. c. 140, s.205A, has it been reported to the State Police Headquarters, and to the local police dept. by telephone, telegraph, teletype, or other notification system within 1 hour following the occurrence of the accident?
(g) Is the injury a "reportable" injury as defined by 520 CMR 5.06?

X. Inspection

(a) Has the annual general mechanical inspection been performed before the start of the season for amusement devices and before any permits for operation of said devices have been issued?
(b) Was the inspection of amusement rides and devices performed by an authorized inspector licensed by a board of three district engineering inspectors? (A team of previously qualified authorized inspectors may also inspect such devices and if the device is found to comply with 520 CMR 5.00 may authorize its use)
(c) Was the device declared structurally sound by an authorized inspector employed by an insurance carrier?
(d) Is the insurance company certified to carry liability insurance on such amusement devices?
(e) Have traveling amusement devices/carnivals been visited previous to the use of the rides or devices by the public, to ascertain that they are in compliance with 520 CMR 5.00?
(f) In the event that the time requirements for starting the rides cannot be met, was the compliance check made at a later date when the rides are in operation?
(g) Did all fixed and itinerant amusement devices receive an annual inspection by the insurer's inspector before the device is used for either public or private purposes?
(h) Is each device given an inspection each time that the device is erected by a person designated by the owner or user and who has been approved by the designee of the Commissioner?

XI. Manufacturer's Analysis (New Model Rides)

(a) Was a stress analysis or other required pertinent data furnished to the Engineering Section if requested?
(b) Is the stress analysis or other data pertinent to the design, structure, factors of safety or performance characteristics in such detail as to be acceptable?
(c) In the event that no engineering calculations are available from the manufacturer or fabricator of a particular device that is a new device and when experience has not been sufficient to warrant acceptance of the device, was a structural analysis signed by a professional engineer

registered in Massachusetts and who has special skill and experience in the appropriate discipline submitted? (See 520 CMR 5.11 for exception)

XII. Required Testing

(a) If load tests or nondestructive examination tests of rides or component parts of rides were required by the engineering section, has the procedure for such tests submitted to the engineering section for approval?

XIII. Emergency Brakes and Anti-Rollback Devices

(a) If cars or other components of the amusement device may collide upon failure of normal controls, is an emergency control sufficient to prevent such collisions provided?
(b) On devices which make use of inclined tracks, is an anti-roll-back mechanism installed, if required by the authorized inspector, to prevent the backward movement of the passenger-carrying units in the case of failure of the propelling mechanism?

XIV. Governors and Speed Limiters

(a) If amusement device has capability of exceeding its maximum safe operating speed, is it provided with a maximum speed limiting device?
(b) If governor has an adjustable speed setting, is it sealed so that the adjustment cannot be changed above the maximum safe operating speed without breaking the seal?
(c) If the seal is broken, was the governor readjusted and resealed by a competent mechanic skilled in such governor mechanism, prior to again putting the ride in service, and was the authorized inspector notified of the change within five days?

XV. Signal Systems

(a) Is an automatic stop provided on all amusement devices where the lack of such a system may permit rear end collision and injury to passengers?
(b) If the operator does not have a clear view of the point at which passengers are loaded or unloaded, is a signal system for the starting and stopping of the amusement device provided?
(c) If a need for coded signals is indicated, has a code of suitable signals for the operation of the amusement device been printed and kept posted at both the operator's and signalman's station?
(d) Are such signals thoroughly understood by all persons who use them?
(e) Are signals for the movement of rides not given until all passengers are safely within or debarked from the device and all persons are clear of any moving parts?
(f) Are all signal systems tested daily before the operation of the device?
(g) When an improper function of the signal system occurs, is the device not used until the signal system has been repaired and in proper working order?

XVI. Passenger Carrying Devices

(a) Is the interior and exterior parts of all devices with which a passenger may come in contact smooth and free from sharp, rough or splintered edges and corners?
(b) Is there no protruding studs, bolts, screws or other projections?
(c) Are interior parts upon which, or against a passenger may be forcibly thrown by the action of the ride adequately padded?
(d) Are belts, bars, footrests and other equipment necessary for safe entrance, exit and support while the ride is in operation provided and maintained in a safe condition?
(e) Is such equipment and the fastenings of sufficient strength to restrain the passengers against all forces generated by the operation of the ride?

XVII. Self-Powered Devices

(a) Do devices that are self-powered and that are operated by passengers have the driving mechanism so guarded and the guards so secured in place as to prevent passengers from gaining access to the mechanism?
(b) Does the "Dodge Em" type of ride have the overhead screening free from holes that will catch the power - conducting device and allow it to hang up or to cause a whipping action of the power supply mast?

XVIII. Restraining Containing Safety Devices

(a) If upon inspection by an authorized inspector it was deemed necessary to install safety devices to prevent accidental or inadvertent dislodgment of a passenger(s) from any tub, car, chair, swing seat, gondola or other carrier, has a restraining or containing device been installed?
(b) Is such restraining device designed, constructed, installed and maintained in such a manner that the passengers will be safely supported?
(c) Is such restraining device of a type which cannot be inadvertently released by either the passenger or by any accidental means?
(d) Is the anchorage for such restraining devices of a strength enough to safely support the passenger?

XIX. Supporting Structures

(a) Are all supporting structures used in connection with amusement devices designed and constructed to carry safely, and with a proper allowance for wind forces inertia forces and dynamic effects of the equipment, load reversals and repetitions of all loads to which the structure footings may be subjected?
(b) Are all rides which were designed for solid footing placed on solid footings and are they anchored to prevent shifting or tipping?
(c) Has the use of shim blocks been kept to a minimum?
(d) Are depressions in the ground near the amusement device footings filled and tamped?
(e) Is drainage provided to prevent water from collecting and softening support areas in case of rain, water or other liquids?

(f) Is the area around the device kept cleared and free from trash and tripping hazards?

XX. Daily Operation Test and Inspection

(a) Are all amusement devices inspected, tested and operated each day before they are used?
(b) Is the inspection and test made by a person certified to be competent for such work by the owner or user of the device?
(c) Did inspection include the testing while in operation of control mechanisms, speed limiting devices, brakes, fastenings, systems and other equipment provided for safety and the proper installation and connection of the safety devices required by the Engineering Section of the DPS or an authorized inspector?

XXI. Assembly and Disassembly

(a) Is the assembly and disassembly of the amusement devices performed by skilled persons under the supervision of a person who has been qualified and authorized by the owner or user to perform such work?
(b) Is the work performed in a proper and workmanlike manner?
(c) Have parts been properly aligned and have they not been bent, distorted, cut or otherwise damaged in order to force a fit?
(d) Are no drift pins used?
(e) Are all parts requiring lubrication lubricated with the type of lubricant that is recommended for that particular purpose?
(f) Is excess lubricant wiped clean?
(g) Are fastening and loading devices installed wherever they are applicable for safe operation?
(h) Are makeshift devices not used?
(i) Do all bolts and nuts fit the fastening holes and are they equipped with the proper nuts and designed locking devices?
(j) Whenever openings are provided for cotter pins, are such pins of the proper size, material and fit used and is a castellated nut wherever possible used with a cotter pin with the pin properly spread?
(k) Are all junction boxes kept locked and properly secured with machine screws while in use?
(l) When "U" bolt clamps are used for wire rope attachments are at least three clamps used with the "U" bolts on the short or "dead" end of the wire?
(m) Do persons engaged in the assembly or disassembly of amusement devices use tools of proper size and design to enable the work to be performed safely?

XXII. Quality and Inspection of Parts

(a) Are parts that are excessively worn, and/or pins that are out of round or with worn shoulders not used?
(b) Does material which is substituted for worn material comply with the physical and chemical characteristics of the original part and i6 damaged material not used?
(c) Are nails or barrel pins not substituted for bolts or other fastening devices?
(d) Was close visual inspection of parts made during assembly to discover wear or damage?

(e) Was inspection of fastening devices made before assembly and before the ride was placed in service to assure that they have been properly installed?
(f) Are all parts that are stressed free of cracks or the appearance of cracks?
(g) Whenever welding on amusement devices or their component parts is required, is the welding performed by a welder who has been qualified to a procedure that has been drawn up, tested and approved by a welding engineer?
(h) Does the procedure fulfill the requirements of Section IX of the ASME boiler and pressure vessel code 1998 edition or that of the American Welding Society, structural welding code 1998 edition (AWS P1.1-72) with its latest applicable addenda?

XXIII. Control of Operation

(a) Are all amusement devices other than passenger-operated or passenger-controlled devices operated only by an authorized person?
(b) Does the operator remain at the console or operating controls while the device is in operation even if automatic devices are used to control the time cycle of the device?
(c) Are unauthorized persons prevented from handling the operating controls during normal operation except when an authorized operator is teaching or qualifying a new person for approval as an authorized operator?
(d) Is there one authorized operator for each amusement device that is in operation and does he attend his assigned device and no other device while such is in operation?
(e) Where practicable, does amusement device have an emergency stopping mechanism within reach of the operator for use in case of an emergency?
(f) If electrically driven, does amusement device have a disconnect switch of either the direct type, or of a solenoid operated type within reach of the operator at his control station or console for use in case of emergency?

XXIV. Public Protection

(a) Is each amusement device not used or operated while any person is so located as to be endangered?
(b) Are areas in which persons may be so endangered fenced, barricaded or otherwise guarded against public intrusion?
(c) Has each amusement device received certification in writing by an authorized inspector that it meets the requirements established by the engineering section of the DPS? (See 520 CMR 5.26 for information regarding original certification of amusement devices)

XXVI. Inspector's Duties

(a) Has the authorized inspector certified in writing, that in his opinion the device, its appurtenances and control systems conform to the rules and regulations required by M.G.L. c.140, s. 205A?
(b) Have all orders which he deemed necessary to insure the safety of the persons using the device, including seating arrangements, entrance, egress, lighting, fire fighting and other such

provisions that will make the device reasonably safe against both casualty and fire hazards been complied with?

XXVII. Air Compressors

(a) Have air compressors and their appurtenant mechanism and control systems that are operated by compressed air thoroughly examined for safe operation?
(b) Do air receivers and safety valves comply with the requirements of the ASME code, Section VIII division 1?
(c) Has a test of such compressors and systems been made by the authorized inspector to ensure that the device is within its designed range of operation?
(d) If changes from the original design have been made, were such changes approved by the manufacturer of the device and with the signed, stamped and sealed approval of a registered professional engineer?

XXVIII. Modular Units

(a) Have all of the pins and bolting materials passed an annual inspection?
(b) Did modular units receive a cursory inspection to ascertain that none of the security wires or pins or bolting are broken, worn, or chafed and that the threads of bolts and nuts are not worn to the next lower class of fit nor cracked?
(c) If the stressed materials give the appearance of excessive wear, cracking or other defect, was a nondestructive test such as dye penetrant, magnaflux or X-ray ordered to determine that the material is safe for the purpose intended?
(d) Are clevis pins in stressed locations in such a position that the pin cannot fall out of its intended position or work out of its position by vibration, friction or other means?
(e) Was the bolting up of devices given special attention during the inspection procedure?
(f) Do the connecting devices have a minimum factor of safety that will safely support the passengers against any compressive, tensile or torsional forces that may be developed by the device, its fixtures or appurtenances?

XXIX. Electric Motors and Generators

(a) Were electric motors and generators tested at the annual inspection and at each new setup following the annual inspection?
(b) If bonding or grounding is insufficient or improper, was rejection issued?
(c) If excessive end thrust, loose bearings, loose keyways, worn belts, improper use of "V" belts or twisted belts was noted, was rejection issued?
(d) If excessive or insufficient or improper lubrication was noted, was rejection issued?
(e) Were electric cables connecting devices to the power source whether from a public utility or from a self-contained, gasoline or diesel driven source, free from abrasion and grounding?
(f) Are all wire cable, clips sockets, yokes, hooks, chains and similar fixtures free from excessive wear, abrasion and deformation or corrosion?

(g) Are all wire cable, clips sockets, yokes, hooks, chains and similar fixtures suitable for the use intended and of sufficient strength?
(h) When used for structural stabilization, are all wire cable, clips sockets, yokes, hooks, chains and similar fixtures checked for the correct number, angle and anchorage for their intended use?

XXXI. Support and Balance

(a) Is each amusement device properly attached to its foundation and structural supports in such a manner that the structure is in a firm, level and plumb condition, properly anchored an a foundation adequate for the load imposed without inclination to sway?
(b) Is the device balanced both statically and dynamically to the point that it is safe for the public to use?
(c) Are authorized attendants instructed to properly load the device so that no eccentric forces are generated by the motion of the ride?

XXXII. Nonmodular Devices

(a) Did devices that are nonmodular in erection receive all of the foregoing inspections and in addition was every individual connection examined and inspected in a similar manner?

XXXIII. Cost of Test

(a) Did owner, operator or user of the device accept responsibility of the expenses involved in performing any tests either electrical, nondestructive or destructive?

XXXIV. Power of Attorney

(a) Did owner or user of amusement devices covered by 520 CMR 5.00 give a power of attorney for service of process to the Commissioner of Public Safety, or his designee or successors in office, notarized and in writing?
(b) Did such owner or user agree that any process, action or proceeding against him may be served, and shall have the same legal force and validity as if served on him and that such appointment shall continue in force as long as any liability remains outstanding against the owner or user in the Commonwealth of Massachusetts?

XXXV. Insurance

(a) Has the owner or user of amusement devices covered by M.G.L. c.140, s.205A furnished proof of financial responsibility to satisfy claims for damages on account of any physical injuries or property damage suffered by any person by reason of any act or omission on the part of the owner or user, their agents or employees in the minimum amount of one million dollars in combined single limit bodily injury and property damage?
(b) Is the character and form of the financial responsibility as the insurance commissioner determined to be necessary for the protection of the public?

REGULATORY AUTHORITY

520 CMR 5.00: M. G. L. c. 140, Sec. 205A.